

PSYCHOLOGICAL ABSTRACTS

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PSYCHOLOGICAL ABSTRACTS

Vol. IX, No. 3

March, 1935

GENERAL

1011. [Anon.] *La psicologia sperimentale al IX congresso nazionale di filosofia.* (Experimental psychology at the ninth national congress of philosophy, Padua, September 1934.) *Riv. Psicol.*, 1934, 30, 205-206.—A summary of the parts of the proceedings of the congress in which psychology was discussed. The main contribution was by Gemelli, who read a paper on measurement in psychology.—*T. M. Abel* (Sarah Lawrence).

1012. *Belaruskaya Akademiya Navuk. Zbornik Pratz Psikhoneurologichnaha Instytutu.* (White Russian Academy of Sciences. Transactions of the Psychoneurological Institute.) Minsk: Academy, 1933. Pp. 84.—This is a collection of 9 reports of a conference of psychoneurologists in White Russia. The reports are: psychoneurology in the second five-year period, in the light of the resolutions of the 17th All-Union Party Conference, by I. D. Sapir; the reconstruction of psychoneurological aid in the second five-year period, by Pasviansky; the reconstruction of psychiatric aid stations, by A. K. Lenz; principles, methods, and organizations of psychiatric aid, by S. M. Afonsky; neuropsychic ailments among children and the organization of psychoneurological aid to children in White Russia, by Slutsky; the problem of cadres of psychoneurologists in White Russia during the second five-year period, by M. A. Khazanov; physical methods of prophylaxis and therapy as effective means in the improvement of the health of the toiling masses during the second five-year period, by D. A. Markov; White Russian therapeutic watering places, by D. Naidus; materials for a plan of psychoneurological aid during the second five-year period in White Russia, by S. M. Afonsky. From the statistics of the reports it appears that mental disorder has decreased during the Soviet regime and that the care for mental illness is many times greater than that before the revolutions.—*G. H. S. Razran* (Columbia).

1013. *Benjamin, A. C. The mystery of scientific discovery.* *Phil. Sci.*, 1934, 1, 224-236.—The author shows that there is more of a formal character in the act of scientific discovery than is generally recognized; for many inductive operations are based on rules. The article is devoted to an argument that induction is a formal process, just as deduction is, rather than to a formulation of the rules by which it takes place.—*C. C. Peters* (Pennsylvania State).

1014. *Bernfeld, S. Die Gestalttheorie.* (The Gestalt theory.) *Imago, Lps.*, 1934, 20, 32-77.—That the Gestalt theory's distinctive principles, such as its repudiation of elements and of the association theory, were not exactly original with the leaders of the movement, is known from the work of Ehrenfels and his successors. These principles may likewise

be found in Freud's earliest writings. In using the concept of association Freud made qualifications that saved it from the modern objections to it. He thereby preserved its most useful feature—its physiological significance—which Gestalt psychologists sacrificed in their general repudiation. When in 1904 Wertheimer used free association tests with criminals, his views were very close to early psychoanalytic theory. Lewin bears a "more than superficial relationship to Freud." Köhler and Kofika have less in common with psychoanalysis because of their preoccupation with Gestalt theory in physics. Psychoanalysis contributed largely to Gestalt psychology, though the beneficiaries do not admit this. Psychoanalysts follow the advance of Gestalt psychology with interest, but continue to meet with the stock objections to their theory. Gestalt psychology will be inadequate as long as it neglects case histories.—*H. D. Spoerl* (St. Johnsbury, Vt.).

1015. *Cutler, T. H. The student and layman definition of psychology.* *J. abn. soc. Psychol.*, 1934, 29, 213-217.—171 individuals of two mid-western business concerns checked a list of 25 definitions or general descriptions of what 107 individuals (in a preliminary study) thought the subject of psychology consisted in. Those individuals having no academic training in the field of psychology listed the study of "the mind" as first choice, while those having one or more courses listed it as fourth. Those individuals with academic training in psychology listed the study of "human behavior" first, while those without academic training listed it as third. The "reaction to mental stimuli" ranks as second for both groups.—*C. H. Johnson* (Boston Psychopathic Hospital).

1016. *Feigl, H. Logical analysis of the psychophysical problem.* *Phil. Sci.*, 1934, 1, 420-445.—The dualism between the "mental" and the "physical" is really only a dualism of language: the language of data and the language of constructs. These languages, although inter-translatable, have incompatible syntaxes, and confusion lies only in the careless combination of both. Any question about reality not expressible in one or the other of these logically legitimate languages, and not capable of inter-translation between them, is meaningless.—*C. C. Peters* (Pennsylvania State).

1017. *Halperin, P. I. Zametky o printzipe tzelostnosti. Po povodu statyi Professora Goldsteina "Printzip Tzelostnosti v Meditzine."* (A note about the principle of totality. Concerning Professor Goldstein's article "The Principle of Totality in Medicine.") *Sovetsk. Psikhonevrol.*, 1933, 3, 19-34.—Goldstein's "Gestalttheorie" of the organism and its ailments is just as mechanistic and anti-dialectical as the older atomistic and reflexive concepts. It is a mere meager abstraction, and, in spite of its contrary

protestations, is metaphysical, vacillating between crude materialism and idealism. Configurations are atoms under a different name, colored bricks still essentially only bricks. Only dialectical materialism, with its principles of the identity of opposites and saltatory emergence of qualities from quantities through the conflict of opposites, gives a true scientific picture of the organism and steers clear of metaphysical entanglements.—G. H. S. Rasran (Columbia).

1018. Hartshorne, C. **The parallel development of method in physics and psychology.** *Phil. Sci.*, 1934, 1, 446-459.—The author traces briefly the parallelism and interaction between physics and psychology in the early days in which neither was clearly differentiated from philosophy. But the main effort of his article is to bring physics and psychology together in the analogy between *radiation* as basic to the phenomena of physical reality and *feeling* as the all-important and all-pervasive factor in psychological phenomena; and the laws in both fields are said to be statistical in nature. "As Whitehead and many other philosophers have suggested, the subtle elusive feeling-tones of experience are the bridge to the understanding of all its qualities. . . . The life of the social emotions, which is the essential life of man, does not flow merely around sensations, but through them, it is their whole being and content. They are relatively stable and objectified (socially externalized) condensations of the swirl of feeling, somewhat as electrons are described as relatively stable and sharply localized phases of the activity of space-time.—C. C. Peters (Pennsylvania State).

1019. Hunsicker, H. H. Dr. Jean Marie-Gaspard Itard. *Med. Rec.*, N. Y., 1934, 140, 682-684.—An account is given of the life of Itard, 1774-1833, his study of and work with Kaspaar Hauser, known as the "Savage of Aveyron," and his work with deaf mutes. Itard's educational program for Kaspaar Hauser consisted of a plan systematically to make social life desirable to him by making it congenial, to awaken his nervous sensibilities and quicken his emotional responses, to extend the range of his ideas by developing new wants, to teach the use of speech by exercise of imitation under the spur of necessity, and to exercise the simple operations of his mind upon his physical wants. He worked five years with the boy, but considered his work a failure, not realizing that his methods and results laid the foundation for the methods of physiological education in use today. While working with Hauser, he also worked extensively with deaf mutes, wrote a *Treatise on Diseases of the Ear and Audition*, differentiating them for the first time. In particular, he stressed lip reading for deaf mutes and established the basic principles upon which the education of deaf mutes now rests.—M. H. Erickson (Eloise Hospital).

1020. Jaensch, E. R. **Farbensystem und Aufbau der psychophysischen Person. I. Zur Einleitung: Die Aufgaben der deutschen Bewegung im Innenbezirk der Wissenschaft.** (Color system and structure of the psychophysical person. I. Introduction: The

problems of the German movement within the realm of science.) *Z. Psychol.*, 1934, 132, 193-201.—The new movement in German culture represents a departure from the S_2 -structure of the recent past, with its characteristic emphasis on method and neglect of real life-values, toward a renewed appreciation of the intimate relationship between science and life. The study of color, although apparently remote from life, really represents more than a conceptual and methodological game, since it brings a number of different sciences together in their common quest for reality. For this reason the present series is justified.—R. B. MacLeod (Swarthmore).

1021. Klemm, O., & Götter, H. K. **Bibliographie der deutschen und ausländischen Literatur des Jahres 1933 über Psychologie, ihre Hilfswissenschaften und Grenzgebiete.** (Bibliography of German and foreign literature for the year 1933 on psychology and related sciences.) *Z. Psychol.*, 1934, 132, 388-433.—R. B. MacLeod (Swarthmore).

1022. Morgan, C. L. **The emergence of novelty.** New York: Holt, 1934. Pp. 207. \$2.75.—Huxley's view of evolution as a generalized account of what actually happens is preferred to Bergson's interpretation of it as a creative explanation connoting superposed metaphysics. Analytically, scientific inquiry may be subsumed under metaphysics, psychology and physics. Each is a closed system, but insufficient to interpret adequately all that happens. Secondary novelty distinguished from primary novelty follows the latter in a similar field of relatedness. Empirical science is not concerned with determinism. Organismic interpretations have supplanted the mechanical with a consequent emphasis upon organization rather than upon mere aggregation. Physiological processes are assumed to be concomitant with three distinguishable levels of mentality, sentient, perceptive and reflective. Ontogenetically and phylogenetically, learning, meaning and memory emerge as a result of organization, which is the key note of biological advance. Perceptual externality is genetically generated by cross combinations of diverse data. Sense stimulation and motor behavior are interrelated. Common sense, value and intuitive insight are all elaborately derived, and their emergence involves relational factors. Permanence and flux are complements rather than disjuncts in all reality. This reality can be interpreted only philosophically, but not empirically as by Whitehead's theory of ingression, or by its earlier analogue in Eastern thought.—P. S. de Q. Cabot (Harvard).

1023. Norris, O. O. **Preamble to an organismic theory of knowledge.** *Phil. Sci.*, 1934, 1, 460-478.—The first part of the paper presents the thesis that science should develop and carry its own philosophy, and that there should be no such thing as a strictly or abstractly philosophical enterprise; and in this paper the author attempts such philosophizing for psychology. As its central theme the paper suggests that "knowledge is an affair of the organism as a whole, in relation to its environment, and not of the brain and nervous system alone, or of sensation com-

plexes; and that its proper function is that of serving biological ends."—C. C. Peters (Pennsylvania State).

1024. Pillay, A. P. [Ed.] *Marriage hygiene. A scientific quarterly.* Bombay: Times of India Press. \$4.10 per volume. Vol. 1, No. 1, August 1934.—R. R. Willoughby (Clark).

1025. Radecki, W. *El discriminacionismo afectivo.* (Affective discriminationism.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 36-38.—"Affective discriminationism is not a new psychological doctrine; it is a new systematization of the results of interpretations of all partial doctrines." It is a developmental psychology not incompatible with psychoanalytic principles.—R. M. Bellows (Ohio State).

1026. Rashevsky, N. *Physico-mathematical aspects of the Gestalt problem.* *Phil. Sci.*, 1934, 1, 409-419.—This is a companion article to the author's earlier one in the same journal on "Foundations of Mathematical Biophysics." Just as in the earlier article he undertook to show how the structure and functioning of biological cells and organisms could be deduced mathematically from a few fundamental assumptions, so here, by a similar mathematical process, he treats various aspects of the Gestalt problem. He shows, by a rather elaborate mathematical treatment in terms of general principles and with illustrations, "that such things as the wholeness of a geometrical configuration or the various properties of 'grouping' may be quantitatively represented by giving the analytical equation of the corresponding 'distribution curve' of the distances (from the center of the pattern). . . . We thus see a possibility of a physical interpretation of wholeness, grouping, etc."—C. C. Peters (Pennsylvania State).

1027. Sisson, E. D. *Twenty years after.* *Sch. & Soc.*, 1934, 40, 781-784.—The author compares the present outlook for psychologists with that which has been obtaining since 1915. Of 196 individuals who were members of the American Psychological Association prior to 1915, most (131) are now teaching. Only 15% of the group are in work not directly connected with a university or college. Even in 1934 about 1100 out of 1700 members of the American Psychological Association still are teaching. Since, however, the rate of output of Ph.D.'s in psychology has been very high since 1929 (97-102 a year), it is unlikely they can continue to be absorbed into teaching positions. In fact, in 1933 only 29 Ph.D.'s were placed in a position of any kind. The author believes the curriculum in psychology should now be modified to prepare students more effectively for the applied fields than it has heretofore.—H. L. Koch (Chicago).

1028. Vernon, P. E. *A new instrument for recording handwriting pressure.* *Brit. J. educ. Psychol.*, 1934, 4, 310-316.—A new type of stylus is described. It makes possible simultaneous records of grip pressure and point pressure during handwriting.—K. M. Coudery (Stanford).

1029. Wentworth, H. A. *The tangentometer.* *Arch. Ophthalm.*, 1934, 12, 403-406.—A compact set of scales is described by means of which any surface

may be quickly and conveniently ruled for use as a tangent screen at the usual distances from 16.6 cm. to 200 cm.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1030. Wooden, H. Z. [Ed.] *The international council for exceptional children review.* Battle Creek, Mich.: International Council for Exceptional Children. Vol. 1, No. 1, May, 1934. Issued each February, May, and October.—R. R. Willoughby (Clark).

[See also abstracts 1082, 1456.]

SENSATION AND PERCEPTION

1031. Abel, T. M. *Tactual and visual perceptions of extent among children and adults.* *Psychol. Bull.*, 1934, 31, 681.—Abstract.—J. F. Dashiell (North Carolina).

1032. Abraham, S. V. *Amblyopia: a classification.* *Arch. Ophthalm.*, Chicago, 1934, 12, 391-402.—Amblyopia is classified as congenital or acquired, and the acquired amblyopias are grouped as passive (due to ametropia) or active (hysterical if bilateral, due to squint when unilateral). Only the passive and the unilateral active suppressions are discussed. Data are presented indicating that passive suppression occurs only when the ametropia exceeds one diopter of astigmatism or 4.5 diopters of hyperopia; no data are given for myopia. Although active suppression appears usually to be due to squint, cases are mentioned where there has apparently been no squint but where the difference between the acuities of the two eyes is greater than can be accounted for by their refractive difference. The advantage of early correction with consequent decrease in the degree of amblyopia is indicated.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1033. Adler, F. H., & Fliegelman, M. *Influence of fixation on the visual acuity.* *Arch. Ophthalm.*, Chicago, 1934, 12, 475-483.—Using an electrocardiographic camera, the authors photographed the light reflected from a tiny mirror attached to the eyeball of an observer fixating (1) a cross hair and (2) a variable, exposed stimulus. The resultant graphs show that three types of movement occur during fixation: sudden shifts about once per second; gradual shifts in position of the visual axis lasting less than 0.2 second; and five vibratory movements averaging from 5 to 10 in 0.1 second. These last represent an average shift of 2 minutes 14 seconds, while the others may amount to as much as 17 minutes 31 seconds. These data indicate the fallacy in explaining the minimum separable as depending on the stimulation of two cones separated by a third unstimulated cone; they are compatible with Weymouth's view that percepts result from the averaging of a large number of stimulus patterns. The searching movements characteristic of eyes with defective foveas are interpreted from this point of view.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1034. Bielschowsky, A. *Divergence excess.* *Arch. Ophthalm.*, Chicago, 1934, 12, 157-166.—A case history is presented where divergence excess gave rise to a

spasm of accommodation. After advancement of both internal recti, these conditions were temporarily relieved. Later recurrence of the symptoms is explained as due to abnormal irritability of the center controlling divergence. Remarks following presentation of the paper are appended.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

1035. Bromberg, W., & Schilder, P. Olfactory imagination and olfactory hallucinations: an experimental and clinical study of the sense of smell in normal and in psychotic persons. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 467-492.—The phenomenology of smell was studied in 12 normal persons with reference to images, after-effects, memory images, imagination, etc. Smell is essentially an objective sense, quite unlike tactile sensation, but similar to vision and hearing. The odor is perceived not in the mucous membrane of the nose, but in the air of the nasal cavity, which is considered external to the body. Olfactory imagination was difficult for most subjects, and occurred with definite admixture of optic imagination. There were no changes in the olfactory image such as are noted in optic or tactile imagination. Unpleasant odors could be imagined more easily and vividly than pleasant odors. Olfactory hallucinations were studied in 40 cases of psychosis (chiefly schizophrenia and alcoholism). The outstanding characteristic of all hallucinated smells was their disagreeableness; they all contained organic elements and had direct or indirect references to the body and to bodily excrement. The significance of the decayed (organic) character in hallucinated smells is discussed from an analytic standpoint.—*D. G. Marquis* (Yale).

1036. Bujas, R. Über den Zusammenhang von positivem und negativem Nachbild. (The connection between positive and negative after-images.) *Acta Inst. psychol. Univ. Zagreb*, 1, No. 1.—According to the general theory of sensory processes propounded by the author, a sensation is conditioned by two variable factors: sense organ and stimulus. Sensation is aroused when the dynamic equilibrium of these two factors has been disturbed. The process of adaptation is regarded as an activity of the organ to re-establish its previous equilibrium. A positive after-image is obtained after cessation of the stimulus to which the sense organ has been adapted, unless a new stimulus is acting. A negative after-image obtains its complementary quality of subtraction from the neutral gray as a new stimulus. Dazzling during the light and dark adaptation is regarded as a total achromatic negative after-image. In the same way an achromatic negative after-image may be defined as partial dazzling.—*B. P. Stevanović* (Belgrade University, Yugoslavia).

1037. Bujas, Z. O sukcesivnom kontrastu kod okusa. (Successive contrast to the sense of taste.) *Zagreb*: 1933. Pp. 27.—Mixtures of taste stimuli were applied after the subjects had been previously adapted to one of the components of these mixtures. The taste of the component previously applied was now weakened or quite disappeared, while the other

component not previously applied was strengthened or was the only stimulus sensed. The phenomenon is regarded as the same as the appearance of the after-image in vision, with the quality of subtraction from the neutral gray ground.—*B. P. Stevanović* (Belgrade University, Yugoslavia).

1038. Ciocco, A. A statistical approach to the problem of tone localization in the human cochlea. *Hum. Biol.*, 1934, 6, 714-721.—The hearing threshold for different tones is related to nerve loss to show graphically the part of the cochlea involved. The relation between nerve atrophy and hearing loss is non-linear.—*O. W. Richards* (Yale).

1039. Crider, B. Certain visual functions in relation to reading disabilities. *Elem. School J.*, 1934, 35, 295-297.—When tested with the manoptoscope and Selzer's digit-reading stereoscope device to determine ocular dominance, 143 pupils having muscle imbalance in one eye were found generally to use "the eye having the most efficient musculature." Eye dominance is thus related to muscle imbalance, alternating vision, and a lack of visual fusion—the factors asserted by Selzer to "account for such reading disability as [is] not accounted for by general mental disability." The writer suggests that "all four [visual] factors are in some [vague] way connected with the general problem of hemispherical dominance."—*P. A. Witty* (Northwestern).

1040. Crowe, S. J., Guild, S. R., & Polvogt, L. M. Observations on the pathology of high-tone deafness. *Johns Hopk. Hosp. Bull.*, 1934, 54, 315-379.—Clinical and pathological findings were correlated in 79 patients whose audiograms showed impairment of hearing limited to the high tones. The receptors for high tones were shown to be located in the basal turn of the cochlea. In four cases with severe impairment at 4096 d.v. but good hearing for low tones, the histologic examination of the ear showed an extent of organ of Corti atrophy greater than in any case with preservation of hearing at 4096 d.v. "Our observations definitely prove that there is some form of localization of cochlear response to certain high tones, but do not favor any particular theory, such as that of Helmholtz or of Ewald." There are 44 text figures and 6 appended tables which give the complete findings for each ear studied.—*D. G. Marquis* (Yale).

1041. Dandy, W. E. Effects on hearing after subtotal section of the cochlear branch of the auditory nerve. *Johns Hopk. Hosp. Bull.*, 1934, 55, 240-243.—In two patients incomplete section of the eighth cranial nerve for Ménière's disease left (by estimate) about one-eighth of the cochlear branch. In one case hearing was unaffected except for tones over 1024 d.v.; in the other, there was no change in the audiogram. "The experiments on the auditory nerve are, therefore, quite similar to those of the trigeminal and optic nerves, in both of which a large volume of the nerve can be sacrificed without loss of function."—*D. G. Marquis* (Yale).

1042. Douglas, B., & Lanier, L. H. Changes in cutaneous localization in a pedicle flap. *Arch.*

Neurol. Psychiat., Chicago, 1934, 32, 756-762.—A case is presented in which a pedicle skin flap from the right nasolabial region was substituted for the right four-fifths of the lower lip, which had been destroyed in an accident. The original nerve supply for about three-fourths of the flap remained intact, and sensations from this sensitive portion were referred mainly to the upper lip and cheek. There was a progressive shift, during a period of several months, of "local sign" from the upper lip and cheek to the lower lip. A transitional stage was observed involving considerable confusion and a tendency to localize sensations in an area intermediate between the old and new locations of the flap. In the denervated fourth of the flap, which recovered sensitivity with the ingrowth of nerve fibers, no false reference in localization was observed. "These results clearly indicate that 'local sign' depends mainly on habit formation, involving the association of cutaneous impulses with the kinesthetic impulses."—D. G. Marquis (Yale).

1043. Ferree, C. E., Rand, G., & Stoll, M. R. Critical values for the light minimum and for the amount and rapidity of dark adaptation. *Brit. J. Ophthalmol.*, 1934, 18, 673-687.—The light sense and the amount and rapidity of dark adaptation have been studied in relation to the needs and requirements in clinical work. Values are given for the light minimum on 206 eyes at ages ranging from 9 to 70 years, 114 male and 92 female. Determinations were made at the end of a standardized period of light adaptation and after 1, 2, 5, 10, 15 and 20 minutes of dark adaptation. Curves were plotted to show the distribution and range of scatter of the results obtained, and a brief statistical treatment is given to bring out points of interest and value in diagnosis.—R. J. Beitel, Jr. (Clark).

1044. Fry, G. A., & Bartley, S. H. Electrical response of the retinal ganglion cell axons. *J. cell. & comp. Physiol.*, 1934, 5, 291-299.—The cathode-ray oscillograph shows a rhythmic discharge of the ganglion cells when the rabbit eye is stimulated with periodic flashes of light. Under their conditions the rhythm was about 100/second. One electrode was placed on the sclera and the other on the cornea or the tissue at the back of the eye. The rhythms from all parts of the sclera are synchronized.—O. W. Richards (Yale).

1045. Godlove, I. H. Complementarism of the standard O.S.A. and I.C.I. observers. *J. opt. Soc. Amer.*, 1934, 24, 264-266.—The author develops a method for finding the complementary wave-length equations and compares the resultant curves for the O.S.A. and I.C.I. observers with those for Sinden's empirical data. The standard curves are parallel, lying for the most part within the intersecting curves for Sinden's two observers who showed respectively the most and the least macular pigmentation. It appears that the differences between the two standard observers are not wholly accounted for by the hypothetical greater macular pigmentation of the I.C.I. observer.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1046. Godlove, I. H., & Munsell, A. E. O. Colorimetry with reflection standards: a quasi-psychological method.

Interconversion of physical and psychological color specifications. *J. opt. Soc. Amer.*, 1934, 24, 267-271.—After a brief discussion of the advantages and disadvantages of physical and of psychological methods of specifying colors, the Munsell system is described as providing for a quasi-psychological method yielding precise and reproducible specifications of the hue, saturation, and brightness of any sample by direct inspection and comparison with the Munsell standards. Results of a controlled experiment in which several observers judged 32 colors by the direct method indicate very satisfactory agreement with an indirect method involving spectrophotometry, colorimetry and conversion of results to Munsell specifications.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1047. Grimm, K. Der Einfluss der Zeitform auf die Wahrnehmung der Zeitdauer. (The influence of temporal form on the perception of duration.) *Z. Psychol.*, 1934, 132, 104-132.—Auditorily delimited intervals of time, broken irregularly or regularly into the same number of subordinate intervals, were presented for comparison. It was found: (1) that the regularly broken intervals appeared longer than the irregularly broken intervals; (2) that irregularly broken intervals in which the breaks were grouped in different ways did not differ reliably from each other; (3) that the absolute duration of the total interval did not affect these relationships; (4) that an increase in the loudness of the delimiting signals decreased the phenomenal differences. The results are found to support Schumann's theory of expectation and surprise in the perception of time.—R. B. MacLeod (Swarthmore).

1048. Hamill, R. C. Tubular vision. *Arch. Ophthalmol., Chicago*, 1934, 12, 345-351.—The author discusses three cases of hysteria marked by tubular vision, indicating how the field contraction may be shown to be subjectively conditioned and analyzing in detail the attitude responsible in one case.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1049. Hecht, S. A theoretical basis for intensity discrimination in vision. *Proc. Nat. Acad. Sci., Wash.*, 1934, 20, 644-655.—A theory of visual intensity discrimination is proposed which describes quantitatively all the established available data from the photosensory systems possessed by such diverse animals as the clam *Mya*, the insects *Drosophila* and the bee, and the human eye. The theory depends on the photochemical events which take place at the moment when a photosensory system already adapted to the intensity I is exposed to the just perceptibly higher intensity $I + \Delta I$. Unlike previous formulations, this theory predicts that the fraction $\Delta I/I$, after rapidly decreasing as I increases, does not increase again at high intensities, but reaches a constant value which is maintained even at the highest intensities.—R. Smith (Clark).

1050. Ibukiyama, T. Experimentelle Untersuchungen über Sehgrößenkonstanz. III. Die Einflüsse der Farben auf die Konstanz. (Experimental studies on the constancy of visual size. III. Effect of colors upon the constancy.) *Jap. J. exp. Psychol.*, 1934, 1,

37-48.—Experiments show that a red object has a stronger grade of constancy than a blue one. According to the observers' introspection red objects were phenomenally seen more impressively and more corporeally than blue ones.—*R. Kuroda* (Keijo).

1051. Ives, J. E. Effect on the eye of the yellow light of the sodium vapor lamp. *Publ. Hlth Rep., Wash.*, 1934, 49, 931-939.—12 men did intensive clerical work with sodium vapor lamp illumination. A control group did similar work with tungsten lamp illumination. No differences were found in working efficiency, and there was no permanent effect on the eyes of subjects working with the sodium vapor lamp.—*C. M. Louttit* (Indiana).

1052. Jaensch, E. R. Farbensystem und Aufbau der psychophysischen Person. II. Die Synthese der Heringschen und Young-Helmholtzschen Farbenlehre und ihre allgemeinere Bedeutung. (Color system and structure of the psychophysical person. II. The synthesis of the Hering and the Young-Helmholtz color theories and their more general significance.) *Z. Psychol.*, 1934, 132, 202-210.—The theories of Helmholtz and of Hering are not in fundamental conflict, since each represents a more or less valid description of processes within one zone of psychophysical organization. The visual mechanism includes both a zone of threefold articulation and a zone of fourfold articulation, the former being primordial, the latter secondary. Helmholtz studied the one, Hering the other. The difference between the two investigators is intelligible in the light of Jaensch's distinction between physicoform and ideofrom types of thinking.—*R. B. MacLeod* (Swarthmore).

1053. Jaensch, E. R., & Dauelsberg, E. Farbensystem und Aufbau der psychophysischen Person. III. Zur Synthese der Heringschen und Young-Helmholtzschen Farbenlehre. (Color system and structure of the psychophysical person. III. The synthesis of the Hering and the Young-Helmholtz theories of color.) *Z. Psychol.*, 1934, 132, 211-238.—Experiments with the Purkinje phenomenon showed that the displacement due to reduction in illumination is not simply in one direction, but is rather in the direction of three "attraction points," red, green, and blue, corresponding to the three primaries of the Young-Helmholtz theory. The same kind of displacement was observed in connection with negative after-images. Differences between integrated and disintegrated types were established with reference to the location on the spectrum of these attraction points.—*R. B. MacLeod* (Swarthmore).

1054. Kato, M. Eine genetische Untersuchung über Gestaltauffassung und Wiedergabe von Gitterquadrat. (A genetic study on Gestalt perception and delineation of latticed patterns.) *Jap. J. exp. Psychol.*, 1934, 1, 49-66.—Reexamination of H. Volkelt's study on child perception.—*R. Kuroda* (Keijo).

1055. Lay, J. T., & Cornog, I. C. A study of the errors in the photographic method of comparing light intensities. *J. opt. Soc. Amer.*, 1934, 24, 149-154.—The chief sources of error in the photographic method of comparing light intensities of the same wave

length are the variations in density over the plate caused by its irregular structure and its uneven development. The causes and magnitudes of these errors are studied by exposing plates to a field of illumination the degree of whose uniformity of intensity is measured with a photo-cell and amplifier. The main objections and difficulties ordinarily associated with the photographic method are briefly discussed, and methods are suggested for their control and correction.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

1056. Livingston, R. Note on the transmission characteristics of four green glass filters. *J. opt. Soc. Amer.*, 1934, 24, 227.—Absorption curves are given for four combinations of filters designed to transmit only a narrow green band and having a high percentage transmission at the maximum.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

1057. MacAdams, D. L. The specification of whiteness. *J. opt. Soc. Amer.*, 1934, 24, 188-191.—This paper presents the results of an effort to correlate judgments of the relative whiteness of various samples with their brightness and purity as objectively determined. 23 samples of white cloth having the same dominant wave-length were arranged in order of their relative "whiteness" by each of 30 observers. Repetitions of the test by 10 observers showed that they reproduced their own arrangements no more closely than those of others. Statistical study of the results indicated that when the purity is less than 3%, the judgment of "whiteness" depends primarily on relative brightness; when purity is greater than 5%, purity appears to determine the judgment. The author discusses briefly the lack of precision in the concept "whiteness" and the practical difficulties arising from its use.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

1058. Mayer-Hillebrand, F. Zur Frage, ob nur den willkürlichen oder auch den unwillkürlichen Augenbewegungen eine raumumstimmende Wirkung zukommt. (Concerning the question as to whether involuntary as well as voluntary eye-movements exercise a transforming influence on the experience of space.) *Z. Psychol.*, 1934, 132, 99-133.—Arguments against Hering's and Hillebrand's sharp distinction between the space-transforming effects on the one hand of voluntary, and on the other of involuntary, eye movements have been attacked on the basis of the lateral displacement of negative after-images and the change in egocentric localization observable during nystagmic eye movements. These phenomena are submitted to critical examination, and the original theory of Hering and Hillebrand is defended.—*R. B. MacLeod* (Swarthmore).

1059. Meister, H. Untersuchung spezifischer Schwellen mittels des Pulfrischen Stufenphotometers. (An investigation of specific thresholds using the Pulfrich graded photometer.) *Z. Sinnesphysiol.*, 1934, 65, 217-231.—Differential thresholds were obtained for red and green under three conditions: addition of colored light with and without gray contrast fields, and desaturation with a contrast field

of the standard color. The subjects included normals, color-blind people, and female carriers of color blindness. The results confirm Wieland's previous findings, but the differences and variability were both lower in the present experiment. The carriers show a significantly higher green threshold than the normals. The author suggests that the higher desaturation threshold for carriers be verified by further experiment. Sources of error are considered, and suggestions made for improving apparatus and procedure.—C. J. Herrick (Pennsylvania).

1060. Monjé, M. Ueber die Abhängigkeit des zeitlichen Verlaufes der Gesichtsempfindung von der Reizintensität. (On the dependence of the temporal course of visual sensation on stimulus intensity.) *Z. Sinnesphysiol.*, 1934, 65, 239-247.—From observations of a moving slit of light with the eye fixed, it was found that the whole temporal course of visual sensation changes with increasing stimulus intensity: the latent period is less; the duration of the primary sensation is shorter; the brightness increases; the maximum brightness comes earlier; and the increase in brightness is steeper. Minimal latent period is reached with a moderate stimulus intensity, and is independent of change with further increase of the stimulus. The relationship between stimulus intensity and the various factors is a logarithmic one expressed by the formula: $E = C - a \log I$. The constants, C and a , are computed from the obtained values. The alterations are independent of the personal equation of the observer.—C. J. Herrick (Pennsylvania).

1061. Nafe, J. P. The relation of warmth and cold to vaso-constriction and dilation. *Psychol. Bull.*, 1934, 31, 709-710.—Abstract.—J. F. Dashiell (North Carolina).

1062. Neuhaus, W. Das binokulare Tiefensehen. (Binocular depth vision.) *Z. Psychol.*, 1934, 132, 134-178.—New stereoscopic experiments lead to the conclusion that the perception of depth is based on inherited structures which form an essential part of the organization of the individual. Hering's assumption that specific retinal points possess near and far values is rejected. It is held, rather, that the basis of depth perception lies in a dominance of nasalward images on the retina, differences in depth value being due to differences in relative retinal position. Thus spatial position is determined not by a single element but by at least two elements.—R. B. MacLeod (Swarthmore).

1063. Niederhoff, P. Weitere Untersuchungen am "Staketen-Phänomen." (Further investigations of the "palisade phenomenon.") *Z. Sinnesphysiol.*, 1934, 65, 232-238.—This paper reports further observations of the "palisade phenomenon," the type of experience gotten when two paling fences are seen one through the other. When either observer or object is in motion there is rapid movement of the illusory Gestalten, more rapid than the objective movement, and varying in direction according as the palings are more numerous in the front or rear row, and as the rows stand parallel or oblique. The phe-

nomenon can best be explained on Gestalt principles by referring it to the total pattern of organization of many stimuli received either at once or in rapid succession. The phenomenon confirms Gestalt theory. There is a brief bibliography.—C. J. Herrick (Pennsylvania).

1064. Pauli, R. Über die Zahl- und Mengenauffassung bei kurzdauernder Darbietung. (Regarding the apprehension of number and grouping in short duration presentation.) *Arch. ges. Psychol.*, 1934, 92, 26-44.—An extensive experiment was carried on to study the effort to grasp number stimulation in excess of the generally accepted group of 6 as the limit of eye span. A measure of the time element in reaching a judgment was made. The experiment involves a large number of testees with a special, more intensive, study of four persons differing in age, sex, and intellectual ability. The article is accompanied by tables recording findings, into an explanation of which the author goes with detail. His findings lead to the conclusion that the span of comprehension lies between 2 and 3, and larger groups are sensed as multiples, apprehended by the additive process. Of special value is the application of mathematical procedure in the evaluation of psychical phenomena.—A. B. Herrig (Michigan Central State Teachers College).

1065. Peckham, R. H. Foveal projection during ductions. *Arch. Ophthalm., Chicago*, 1934, 12, 562-566.—While subjects fused stereoscopic pictures which were moved apart until fusion could just be maintained, their eye movements were observed through telescopes. It was found that the degree of movement did not correspond to that necessary to keep the two images on corresponding retinal areas. The author concludes that the discrepancy is compensated by some higher perceptual process.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1066. Renshaw, S. Studies on taste: the neutral temperature range of the tongue and the RL's for NaCl solutions from 3° C. to 52° C. *Psychol. Bull.*, 1934, 31, 683.—Abstract.—J. F. Dashiell (North Carolina).

1067. Rodin, F. H., & Newell, R. R. Movements of eyes under cover. *Arch. Ophthalm., Chicago*, 1934, 12, 525-535.—In order to study the movements of eyes covered by pads and bandages, the authors placed metal markers near the limbus on anesthetized eyeballs and recorded movements by means of roentgenograms. Measurements of relative divergence and convergence are given for eyes in various positions when both were uncovered and when one or both were padded or bandaged. A less complicated measurement made on many observers indicated that when one looks to the extreme right or left, the interpupillary distance is usually different from that in the primary position, but may vary in either direction.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1068. Rosenwald, M. Beiträge zur taktilen Raumanschauung. (A contribution to tactile space perception.) *Arch. ges. Psychol.*, 1934, 92, 85-120.—The article reviews previous studies by Weber and

Katz on tactile localization and threshold of consciousness, and shows need for further study in discrimination between tactile point perception and space perception. For experimentation the sharp and the blunt stimuli were used in sixteen variations from 0.1 mm. to 54 mm. Illustration and explanation of the apparatus used are given and tables accompany the article showing results in the time element for perception of each of the distinct stimuli. Experiences revealed five grades of perception: (1) prick perception; (2) contact, an uncertain point-blunt perception; (3) blunt as contact, known as not a point; (4) blunt with cognizance of one dimension; (5) a two-dimension recognition. Suggestions for further study are made and a bibliography is appended.—A. B. Herrig (Michigan Central State Teachers College).

1069. Ross, R. T. Contribution to the theory of retinal reaction to intermittent stimuli. *Psychol. Bull.*, 1934, 31, 710-711.—Abstract.—J. F. Dashiell (North Carolina).

1070. Schiller, P. v. Wirkung des Umfeldes auf motorische Leistungen. (The effect of the environment on motor performances.) *Z. Psychol.*, 1934, 132, 83-103.—Various types of sensory stimulation (visual, auditory, gustatory, olfactory) were introduced to function as sensory environment for certain simple motor performances, e.g. tapping. It was found that the phenomenally "brighter" stimuli, e.g. green, high pitches, the odor of amylacetate, the taste of lemon, improved the performance, whereas the phenomenally "duller" stimuli had the reverse effect. Observations were made with normal adults, with psychopathic adults and with children.—R. B. MacLeod (Swarthmore).

1071. Sheard, C. Considerations regarding the analysis and interpretation of data on ocular convergence. *Amer. J. Optom.*, 1934, 11, 448-461.—Because of the many possible interrelationships between accommodation and convergence, any binocular relative accommodative tests afford data concerning the accommodative stimulation or inhibition as dependent on accommodative convergence, fusional convergence demands, and reserves. "A comparison of the data obtained with monocular and binocular fixation and focussing often affords information regarding accommodative needs per se and accommodative needs and requirements as influenced by or limited by the convergence requirements which are maintained in the act of binocular single vision." Illustrative data are presented.—R. J. Beitel, Jr. (Clark).

1072. Stevens, S. S. Pitch, loudness, volume and density. *Psychol. Bull.*, 1934, 31, 682-683.—Abstract.—J. F. Dashiell (North Carolina).

1073. Stevens, S. S., & Newman, E. B. The localization of pure tones. *Proc. Nat. Acad. Sci., Wash.*, 1934, 20, 593-596.—The authors give results of experiments which "point definitely to a dual mechanism for the angular localization of tones in the horizontal plane. Phase-differences are the

primary basis for the localization of low tones, whereas high tones are localized principally by reason of differences in intensity at the two ears. In the intermediate region around 3000 cycles, where the differences in intensity are relatively small and where phase-differences are equivocal, the observer localizes tones with the least accuracy."—W. N. Hallett (Cedar Crest).

1074. Stürup, G. Om reflexhyperalgesier og viscerale smerter. Viscero-cutane reflexer I. (Reflex-hyperalgesia and visceral pains. Visceral-cutaneous reflexes I.) *Hospitalstidende*, 1934, 77, 1159-1170.—In 1933 Wernöe (Copenhagen) began a careful investigation of the so-called Head's zones, viz., areas where visceral pains are localized. Besides the localization of pains in the zones, he found a simultaneous occurrence of anemia and hyperalgesia, as a cold reflex. On the basis of experimentation with fish, Wernöe (1929) criticized the previously accepted theory of a visceral-sensory spinal reflex, and maintained a post-ganglion axon reflex which, contingent on irritation of a sympathetic innervation of the sensitive elements, gives hyperalgesia. The present writer questioned the supposition that only one type of hyperalgesia was to be found. His hypothesis was that besides Wernöe's cold reflex, which is intimately connected with the actual pain mechanism, there are zones independent of the immediate pains. Based on an investigation of patients with appendicitis acuta and salpingitis (in an acute period), the author holds that these two types of hyperalgetic areas exist, and differ even in localization. The first, in connection with the pains, is localized in the foremost and rear part of the segment, and accompanied by capillary hyper-irritability. The second type is also present between the pain spells, and has no certain relation to the pain mechanism; there is less pronounced capillary hyper-irritability, preferentially localized inside the segment around Head's maximal points. This preliminary report includes a historical survey with bibliography and four illustrations.—V. Coucheron-Jarl (Mooseheart Laboratory for Child Research).

1075. Tait, W. J. An experimental investigation of the negative fusional convergence amplitude. *Amer. J. Optom.*, 1934, 11, 462-472.—"This paper is mainly concerned with the possibility of developing the negative fusional convergence amplitude. By the term negative fusional convergence is meant 'the innervation supplied to the extra-ocular muscles in their endeavor to maintain single binocular vision of the fixation-object, thereby preventing a homonymous diplopia from ensuing.' The amplitude of fusion in a negative direction is measured by the amount of prismatic power, placed base in, that can be overcome immediately prior to diplopia." Analysis of the data on four selected subjects reveals that "base-in prism calisthenics were more successful in increasing the neuro-muscular response of the adductive amplitude than in effecting any material change in the abductive reserve. This is contrary to the current conceptions."—R. J. Beitel, Jr. (Clark).

1076. Taylor, A. H. Reflection factors of various materials for visible and ultraviolet radiation. *J. opt. Soc. Amer.*, 1934, 24, 192-193.—The author refers to a modification of his portable reflectometer which facilitates direct measurement of the reflection factor for ultraviolet radiation as well as for light. These reflection factors are reported for a variety of materials most of which are practically non-selective in the visible spectrum. Methods of increasing the reflection factor are suggested.—M. R. Stoll (Mass. Eye and Ear Infirmary).

1077. Thompson, E., Howe, H. A., & Hughson, W. Middle-ear pressure and auditory acuity. *Amer. J. Physiol.*, 1934, 110, 312-319.—Two methods were used in studying the effect of middle-ear pressure on the Wever and Bray pick-up from the nerve; first, the insertion of a manometer needle into the bulla with the Eustachian tube blocked, and second, the insertion of a recording manometer needle through the bulla and a pressure manometer needle through the Eustachian tube. Inner-ear pressures were modified by an intravenous injection of 30% sodium chloride solution or of distilled water. Either increased or decreased middle-ear pressures, determined by direct measurement, impair the functional ability of the ear to approximately the same extent. This degree of impairment is directly proportional to the amount of pressure exerted. 5 mm. of mercury was found to be the minimum pressure change which would produce impairment in transmission. Low and high frequencies are affected more than those in the middle range. Variations in middle-ear pressures have no apparent effect on inner-ear pressure, nor is this effect modified by actually changing inner-ear pressure. The effect of middle-ear pressure change seems definitely directed against the conduction mechanism of the ear.—T. W. Forbes (N. Y. Psychiatric Institute).

1078. Thorne, F. C. The concept of a shifting psychophysical function. *Psychol. Bull.*, 1934, 31, 670.—Abstract.—J. F. Dashiell (North Carolina).

1079. Twitmyer, E. B., & Nathanson, Y. Auditory perceptibility: acuity and dominance. *Psychol. Clin.*, 1934, 22, 220-231.—The authors consider the effects of deafness upon speech and behavior and the educational and vocational problems caused in this way. Older methods of diagnosis are shown to be inadequate. A new audiometer test and the method of administering it are described. The test makes possible a determination of absolute hearing and also of ear dominance. The authors point out that, far from being always a liability, deafness may be in some ways an asset.—J. T. Metcalf (Vermont).

1080. Verrier, M. L. Le sens visuel chez les animaux. (The visual sense of animals.) *C. R. Ass. franç. Av. Sci.*, 1934, 63, 397-402.—After a brief review of existing knowledge concerning the eye and the mechanisms of vision, the author stresses the view that the structure of the visual organs has no close relation to behavior and that the structure and functional possibilities of a sense organ do not make possible a prediction either of the organ's role in

behavior or of an animal's degree of psychic development.—M. H. Piéron (Sorbonne).

1081. Volkman, J. The relation of the time of judgment to the certainty of judgment. *Psychol. Bull.*, 1934, 31, 672-673.—Abstract.—J. F. Dashiell (North Carolina).

[See also abstracts 1020, 1029, 1119, 1136, 1138, 1165, 1174, 1185, 1424, 1486.]

FEELING AND EMOTION

1082. Heyde, J. E. Die philosophische Bedeutung der Ausdruckspsychologie. (The philosophical significance of the psychology of expression.) *Z. Psychol.*, 1934, 132, 72-98.—Arguments from the psychology of emotional expression are marshalled to the defense of a revised doctrine of mind-body unity.—R. B. MacLeod (Swarthmore).

1083. Kainz, F. Ein Beitrag zur Werk- und Leistungspsychologie des höheren Gefühlslebens. (A contribution to the psychology of the higher feelings from the point of view of cultural product and achievement.) *Z. Psychol.*, 1934, 132, 18-82.—The psychology of feeling, if it is to accord satisfactory treatment to the problems of artistic production and appreciation, must include not merely an analytic study of the feelings of the individual, but also a direct study of objective artistic structures. Certain tentative principles of explanation and methods of attack for such a psychology are here discussed.—R. B. MacLeod (Swarthmore).

[See also abstracts 1098, 1140, 1144, 1221, 1225, 1228, 1283, 1322.]

ATTENTION, MEMORY AND THOUGHT

1084. Bedell, R. C. The relationship between the ability to recall and the ability to infer in specific learning situations. *Sci. Educ.*, 1934, 18, 158-162.—From an analysis of the test results secured from 324 students in general science courses in Southwest High School, Kansas City, Missouri, and Jefferson High School, Columbia, Missouri, the author concludes that the ability to recall specific facts and the ability to infer a generalized idea from these facts or data are different abilities. Boys are superior to girls in ability to infer, and the ability to infer is a more difficult process than the ability to recall.—(Courtesy *J. educ. Res.*)

1085. Bellows, R. M. A configurational interpretation of memory as related to the learning process. *J. exp. Educ.*, 1934, 3, 1-10.—The author contends that memory is not a tangible entity. Rather, the phenomenon results from the fact that organisms are related in a particular manner to environments. This fact entails the following considerations: (1) Memory depends upon a physiological state or degree of physiological differentiation of the organism as a whole. Without a sufficiently mature animal there could be no memory process for a given situation, for tissue would not be differentiated and irritable, and integration would not be sufficient to bring about the organismic state of dynamic relation.

(2) Memory is related to the learning process as the resolution of the state of dynamic relation is related to the augmented level of physiological process which eventuates from the formation and resolution of dynamic relations. Its physiological correlate is increased bodily differentiation of the organism as a whole. (3) Vicariousness of recall (the fact that one event is recalled instead of another) is due to the motivational factors present at the time of the formation of the particular dynamic relation, interpolated organismic-environmental conditions, and the dynamic relation existing at the time of recall.—H. W. Karn (Clark).

1086. Brown, A. W., Lyon, V. W., & Stein, S. The influence of distraction upon mental-test performance. *Psychol. Clin.*, 1934, 22, 213-219.—Men who had already been tested with one form of the Otis Self-Administering Test were given a second form under conditions of distraction. Two kinds of distraction were used: sensory, in the form of noise, and ideational, in the form of short stories or articles. When practice effect was allowed for, it was still found that the score on the second test was better than that on the first. With increase in the duration of the distractions from a 20-minute to a 30-minute limit the amount of improvement seemed to decrease. Although the distractions resulted in an increase in the amount of work done, they also increased the number of errors.—J. T. Metcalf (Vermont).

1087. Chapman, D. W. The law of reciprocity in attention. *Psychol. Bull.*, 1934, 31, 670-671.—Abstract.—J. F. Dashiell (North Carolina).

1088. Franceschi, A. El pensamiento sin imagen. (Imageless thought.) *Rev. Criminol., B. Aires*, 1934, 21, 424-442.—The problem is treated in its historical and logical aspects. It is concluded that all thought is not imagery, but that images are found in all authentic acts of thought.—R. M. Bellows (Ohio State).

1089. Heidbreder, E. A study of the evolution of concepts. *Psychol. Bull.*, 1934, 31, 673.—Abstract. J. F. Dashiell (North Carolina).

1090. Henry, L. K. The role of insight in the analytic thinking of adolescents. *Univ. Ia. Stud. Educ.*, 1934, 9, No. 5, 65-102.—Geometry problem-solving behavior of 32 superior high school pupils was studied in order to test the operation of insight. While insight occurred in the solution of originals, it was not "the robust, universal trait that characterizes the rational solution of problems, and was, therefore, inadequate and unsuited to describe the typical successful behavior in this experiment."—B. Wellman (Iowa).

1091. Kaltofen, J. Untersuchungen zur Psychologie der Beziehungserfassung. (An inquiry into the psychology of comprehension of relationship.) *Arch. ges. Psychol.*, 1934, 92, 193-248.—The author has made an extensive study of the problem of seeing relationships between stimuli. He describes minutely his method and his material. The latter consisted of words presented visually and acoustically, also of pictures. Response was to be given of the first word

coming to mind. The subjects were asked to describe the mental processes taking place as the reaction word came to mind. The article records these, with the author's detailed comments.—A. B. Herrig (Michigan Central State Teachers College).

1092. Kern, B. Geh an die Arbeit! (Go to work!) Münster: Aschendorff, 1933. Pp. 176. RM. 2.80.—A manual for mental work based on a concrete psychology of learning.—K. F. Muenzinger (Colorado).

1093. Meinecke, G. Einige technische Konstruktionsaufgaben und deren Lösungsmethoden. (Several technical construction problems and their method of solution.) *Arch. ges. Psychol.*, 1934, 92, 249-254.—Two mechanical problems were set to the same person and the complete process of solution recorded, including introspections. The article carries a character delineation of the person.—A. B. Herrig (Michigan Central State Teachers College).

1094. Mitchell, M. B. Anticipatory errors in the repetition of digits. *Psychol. Bull.*, 1934, 31, 674.—Abstract.—J. F. Dashiell (North Carolina).

1095. Morgan, C. L. Characteristics of problem-solving behavior of adults. *Univ. Ia. Stud. Educ.*, 1934, 9, No. 5, 105-143.—The problem-solving behavior of adults was analyzed in three situations, a cross or Yamato puzzle and two mental mazes. The results of the analysis led to important considerations bearing upon the principles of trial and error, recency, frequency and the law of effect.—B. Wellman (Iowa).

1096. Nakamura, S. On the conditions of meaning-formation. *Jap. J. Psychol.*, 1934, 9, 645-680.—It was concluded that "the same object may have various meanings, but under the same conditions it has always the same meaning. It is the characteristic feature of the meaningless figures that they can be classified in entirely different way, i.e. may have various meanings."—R. Kuroda (Keijo).

1097. Rosca, A. Psihologia martorului. (Psychology of testimony.) Cluj, Rumania: Inst. de Psychol. Univ. Cluj, 1934. Pp. x + 160. Lei: 80.—The book aims (1) to test the validity of some previous results obtained by experimenting on very small number of individuals, (2) to apply the same methods to both normal and abnormal individuals, (3) to establish the correlation between testimony and different mental functions like intelligence, memory, attention and suggestibility, (4) to establish quantitatively the accuracy of testimony, (5) to study the relation between free and interrogated testimony, and finally (6) to elaborate a scale of testimony. A picture representing a rather complicated scene is presented to 220 subjects. 106 other subjects are present at an accident, without foreknowledge. The accuracy of report is 90% in the first case and 3% in the second. Persons are better remembered than actions, and actions better than attributes. The testimony is much better immediately after the accident and less good after 8 days, though a large difference does not seem to exist. Interrogation introduces a series of suggestions and affects the testimony. Testimony ability correlates .69 with atten-

tion, .65 with memory, .59 with intelligence, and -.15 with suggestibility. The accuracy of testimony increases with age and reaches its maximum with maturity. One can distinguish an objective and a subjective type of testimony. The majority of individuals are, however, between these two poles. Their frequency of distribution follows the Gaussian curve. Abnormal people have a lower power and accuracy of testimony. A résumé in French is given at the end of the book.—*N. Margineanu* (Paris).

1098. **Togawa, Y.** *Mental disturbances shown by the results of memory tests.* *Jap. J. appl. Psychol.*, 1934, 2, 349-369.—It is the author's opinion that a certain form of mental impediment in male and female students of secondary schools (the present experiment deals only with girls) can be diagnosed by means of relative frequencies of unpleasant pairs of stimulus words which are more often retained and consequently more easily recollected.—*R. Kuroda* (Keijo).

1099. **Utsunomiya, S.** *Abstraktionsversuch.* (Experiments on abstraction.) *Jap. J. exp. Psychol.*, 1934, 1, 19-36.—A repetition of A. Heiss' experiment and its modified procedure with similar results. The need for dynamical study of *Ganzheit* is stressed.—*R. Kuroda* (Keijo).

1100. **Wenzl, A.** *Zum Problem des Bewusstseinsumfanges für sinnvolle Darbietungen.* (A contribution to the problem of the content of consciousness in the presentation of thought material.) *Arch. ges. Psychol.*, 1934, 92, 255-278.—The author experiments with two types of material, sense material and nonsense material, to ascertain the range and content of observation in short-time exposures. The testees recorded their introspections and the author classifies these according to the type of presentation. He comments on the range and type of recalls evoked.—*A. B. Herrig* (Michigan Central State Teachers College).

1101. **Wilhelm, W.** *Über Mittel und Fehler beim Schlieszen.* (Concerning methods used and errors made in reaching conclusions.) *Arch. ges. Psychol.*, 1934, 92, 175-192.—This article is a continuation of an article published in *Arch. ges. Psychol.*, 1933, 89, Heft 1-2. It deals with means used to facilitate thinking in reaching conclusions from given premises, such as precedents recognized, pictorial presentation, further inquiry, self-questioning, re-statement, substitution. An analysis of errors is made, and these are traced to their source in the method of procedure used in reaching the conclusions.—*A. B. Herrig* (Michigan Central State Teachers College).

[See also abstracts 1122, 1164, 1433, 1501.]

NERVOUS SYSTEM

1102. **Auger, D., & Fessard, A.** *Sur l'excitation chimique et photochimique de certains nerfs isolés.* (Concerning chemical and photochemical excitation of certain isolated nerves.) *Ann. physiol.*, 1933, 9, 873-879.—*M. H. Piéron* (Sorbonne).

1103. **Brain, W. R., & Strauss, E. B.** *Recent advances in neurology.* Philadelphia: Blakiston,

1934. Pp. 442. \$5.00.—A collection and collation of some of the important contributions of recent years in the various fields of neurology, presented with regard to their clinical application. The main topics discussed are: the cerebrospinal fluid, intracranial tumors, injuries of the brain, posture and tonus, the plantar reflexes and the grasp reactions, paraplegia and hemiplegia, micturition, the cerebellum, extrapyramidal syndromes, the hypothalamus, sleep, neurotropic viruses, nervous complications of acute infectious diseases, neurological "diseases" of recent description, the treatment of general paralysis, miscellaneous therapeutic advances, and X-ray treatment of diseases of the nervous system. This, the third edition of the book, contains much new material. References to the literature are given at the end of each chapter.—*H. T. Carmichael* (Worcester State Hospital).

1104. **Erlanger, J., & Blair, E. A.** *Manifestations of segmentation in myelinated axons.* *Amer. J. Physiol.*, 1934, 110, 287-310.—By graded treatment of nerve with anodal or cathodal polarization or with Ringer's solution containing an excess of calcium or of potassium it is possible to develop on the conducted axon potential a series of waves delimited by notches, and to block out parts of the action potential by units consisting of these waves. By following the effects of anodal polarization as a type it can be shown that these agents bring into view by one process or another a notching that is normally present. The waves can be variously accounted for, but are believed to be the responses of segments, and the intervals between them are believed to be determined by a lag in transmission across nodes. It is assumed that this lag is the result of a physiological discontinuity determined by local constriction and possibly by differences in the physiological properties of nodal and internodal axis that are indicated by differences in the consistency of these parts. The possibility is considered that segments act as units. Evidence indicates that nodes are less well insulated than internodes, both electrically and chemically. It is for this reason, presumably, that anodal polarization, for example, blocks at nodes at a strength which is enhancing and prolonging the internodal response. Calcium block can be removed by cathodal polarization.—*T. W. Forbes* (N. Y. Psychiatric Institute).

1105. **Ferraro, A., & Barrera, S. E.** *Effects of experimental lesions of the posterior columns in Macacus rhesus monkeys.* *Brain*, 1934, 57, 307-332.—Section of the posterior columns gives rise to a characteristic syndrome of loss or diminution of sense of position. The disturbance is more severe in the fore limbs than in the hind limbs. This was shown to be the result of involvement in cervical lesions of a cerebellar tract composed of afferent fibers from fore-limb nerves which ascend in the posterior columns. All the spino-cerebellar fibers from the hind limbs ascend in the lateral columns.—*D. G. Marquis* (Yale).

1106. **Fessard, A.** *L'influx nerveux.* (The nervous impulse.) *C. R. Ass. franç. Av. Sci.*, 1934, 63, 409-412.—The author first reviews the various historical

definitions of the nervous impulse and then indicates the current facility with which the impulse can be studied and measured, using photography and loud-speakers.—*M. H. Piéron* (Sorbonne).

1107. Halstead, W. The effect of cerebellar lesions upon the modification of vestibular nystagmus through repeated elicitation. *Psychol. Bull.*, 1934, 31, 691-692.—Abstract.—*J. F. Dashiell* (North Carolina).

1108. Hoffmann, W. Thalamussyndrom auf Grund einer kleiner Läsion. (Thalamic syndrome on the basis of a small lesion.) *J. Psychol. Neurol., Lpz.*, 1933, 45, 362-374.—A case is described of a patient with spontaneous pain on one side of the body and very little objective disturbance of sensibility. Serial sections of the brain disclosed a small lesion of vascular origin in the posterior portion of the basal surface of the lateral nucleus of the thalamus. This case is in contradiction to Head's theory, and points rather to a disturbance of function in the pain conduction system itself as the essential condition of central pain.—*D. G. Marquis* (Yale).

1109. Jacoby, G. Über reflektorische Unruheerscheinungen bei Hirnverletzten. (On reflex restlessness in cases of cerebral lesion.) *J. Psychol. Neurol., Lpz.*, 1934, 46, 1-21.—Two cases are described in which restlessness of athetotic character could be elicited by external stimuli. It is suggested that this is a complicated form of reflex movement, closely related to passive associated movement.—*D. G. Marquis* (Yale).

1110. Jasper, H. H. The nature of the effect of nerve centers upon peripheral nerve-muscle excitability. Deformation of the strength-duration curve. *Psychol. Bull.*, 1934, 31, 708-709.—Abstract.—*J. F. Dashiell* (North Carolina).

1111. Lorente de Nó, R. Studies on the structure of the cerebral cortex. II. Continuation of the study of the ammonic system. *J. Psychol. Neurol., Lpz.*, 1934, 46, 113-177.—Detailed consideration of the architectonics, fiber connections, and neuronal structure of the cortex of Ammon's horn leads to a new division of this region into fields. Anatomical observations are presented to support the conception of the synapse as a center of summation with no refractory phase. The fact of overlapping of nerve paths is shown to make a point-to-point projection of one nucleus to a higher station anatomically impossible. Using the concept of summation, however, a hypothetical mechanism yielding a physiologic point-to-point projection can be demonstrated.—*D. G. Marquis* (Yale).

1112. Marshall, C. Experimental lesions of the pyramidal tract. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 778-796.—Twelve bilateral and five unilateral lesions of the pyramids in the medulla were studied in cats. The initial symptomatology included diminished placing and hopping reactions, increased extensor tonus, abnormalities in locomotion and posture, and reduction in the speed and amount of activity. The disturbance was on the whole of lesser

severity than that reported in cases of removal of the motor cortex. In unilateral lesions the defects were chiefly but not completely on the contralateral side. In all of the symptoms a certain amount of recovery took place. In some it was partial while in others it appeared complete. There was no constant set of symptoms persisting at the end of the two to three weeks' observation period.—*D. G. Marquis* (Yale).

1113. Monnier, A. M. Analogie entre l'action des nerfs extrinsèques du coeur et les phénomènes de subordination nerveuse. (Analogy between the action of the extrinsic cardiac nerves and the phenomena of nervous subordination.) *Ann. Physiol.*, 1933, 60, 881-886.—The author notes that subordination reduces the chronaxy of motor fibers, and parallel to this the speed of nerve transmission is reduced. There is a similar situation in electrotonus, which decreases chronaxy and speed of conduction. There are the same modifications of rheobase, chronaxy, speed, duration, and amplitude of action current in subordination as in electrotonus. The author generalizes these results and applies the result to cardiac muscle. The activity of the cardiac inhibitors slows the rhythm and lowers the chronaxy. The reverse is true of the cardiac accelerators. The excitation of the vagus would increase myocardial polarization, resulting in a reduction of the chronaxy.—*M. H. Piéron* (Sorbonne).

1114. Northington, P., & Barrera, S. E. Effects of unilateral and bilateral labyrinthectomy and intracranial section of eighth nerve: experiments on monkeys. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 51-71.—A series of operations were performed on 30 *Macacus rhesus* monkeys to study the effects of peripheral lesions of the vestibular system. The general symptoms of the acute and chronic stages and the nystagmic reactions induced by caloric, rotational and galvanic methods were studied. The effects of bilateral operation were found to be more severe when the destruction was carried out in one stage rather than two.—*D. G. Marquis* (Yale).

1115. Wertham, F., & Wertham, F. The brain as an organ. Its postmortem study and interpretation. New York: Macmillan, 1934. Pp. xv + 538. \$7.50.—The first part of the book is concerned with the general principles of macroscopic examination and histological technique. This is followed by a description of the possible alterations of the individual components of nervous tissue, kinds of lesions, distribution of lesions, and the extent of the normal; a consideration of the interpretation of lesions and of their correlation with psychopathological phenomena; a treatment of comparative histopathology, histopathological syndromes that may be associated with mental disorder, the question of a histopathology of schizophrenia, and forensic histology. According to these authors, we may conclude that: the different kinds of lesions are remarkably few; the distribution of lesions is as important as their kind; present possibilities of making direct correlations between neurohistopathology and psychopathology are fewer than neurohistologists have generally supposed; the

histological data offer no valid authority for the statement that schizophrenia is an organic brain disease; a neurohistology of general bodily diseases would aid in the development of a valid neurohistology of psychiatric diseases. There are an introduction by Adolf Meyer and an appended atlas of 166 plates.—*E. H. Kemp* (Clark).

1116. Whitelaw, G. P., & Snyder, J. C. The physiological production of sympathin in the liver. *Amer. J. Physiol.*, 1934, 110, 247-250.—The effects of section of the liver nerves on the heart rate of decorticate cats with denervated hearts and inactivated adrenals is described. The time course of typical accelerations induced by activity is similar to that of the responses to electrical stimulation of the hepatic nerves. The average acceleration attending pseudo-emotional activity when the liver nerves were intact was 2.5 times as great as it was after the nerves were severed. The basal heart rate decreased significantly on section of the hepatic nerves. From these facts the conclusion is drawn that sympathin is liberated from the liver under physiological conditions such as those of the decorticate animal.—*T. W. Forbes* (N. Y. Psychiatric Institute).

1117. Winterstein, H. Le problème de l'excitation. (The problem of excitation.) *Scientia, Bologna*, 1934, 55, 117-123.—This is a fundamental problem. It has been believed that during rest there was no excitation of an organ, but this is not altogether true, as there still exists a basic reaction when any organ passes from rest to excitation. One can study only part of these reactions because of their complexity. For a time, excitation and electrical stimulation were thought to be the same thing, particularly in nervous tissue. It was found, however, that electrical stimuli set up reactions in distant tissues giving false physico-chemical values. The author has developed a technique of measuring metabolism of distant parts with natural stimuli used as excitants. The ammonia metabolism is the measured process. By means of it, the author has shown how excitation depends on the relation of the nerve to the resting nervous system.—*L. S. Selling* (Eloise Hospital).

[See also abstracts 1044, 1158, 1176, 1178, 1462.]

MOTOR PHENOMENA AND ACTION

1118. Bathurst, J. E. The maturation and learning of serial reaction time and muscular coördination involving visual stimuli. *Psychol. Bull.*, 1934, 31, 701.—Abstract.—*J. F. Dashiell* (North Carolina).

1119. Bernfeld, S., & Feitelberg, S. Bericht über einige psycho-physiologische Arbeiten. (Report on some psychophysiological work.) *Imago, Lpz.*, 1934, 20, 224-231.—The authors followed the publication of their psychophysiological theory with experimentation that has not required it to be materially modified. The theory is that there is a physically measurable tension between brain and body, which is called the potential of the person, that it is lowered by activity, that in perception energy is transferred from without to the sense organs, the thresholds being constant.

One measure of the potential is the difference in temperature of brain and body. Perception was used as a field of experimentation. The threshold (not sensation) was measured for the perception of weight under minimum introspective restrictions. The law of relationship thus discovered has some correlation with Weber's law. Inasmuch as the theory posits a potential of the person it is close to psychoanalytic theory, and the measure of this potential should prove to be a measure of the libido.—*H. D. Spoerl* (St. Johnsbury, Vt.)

1120. Billings, E. G. The occurrence of cyclic variations in motor activity in relation to the menstrual cycle in the human female. *Johns Hopk. Hosp. Bull.*, 1934, 54, 440-454.—Variation in the gross amount of motor activity was measured in six psychiatric patients by means of a pedometer worn by the subject during the entire waking day. Graphs of the activity show a consistent post-menstrual burst of activity, which gradually declines to the time of the succeeding menstrual period. A case of amenorrhea is presented in which there is demonstrated a definite relationship of activity, the amount of oestrogenic substance in the blood, menstruation, and behavior.—*D. G. Marquis* (Yale).

1121. Bills, A. G. Some additional principles of mental fatigue. *Psychol. Bull.*, 1934, 31, 671.—Abstract.—*J. F. Dashiell* (North Carolina).

1122. Burt, H. E. Motor concomitants of the association reaction. *Psychol. Bull.*, 1934, 31, 671-672.—Abstract.—*J. F. Dashiell* (North Carolina).

1123. Carpenter, T. M., Hoskins, R. G., & Hitchcock, F. A. Voluntarily induced increases in the rates of certain "involuntary" physiological processes of a human subject. *Amer. J. Physiol.*, 1934, 110, 320-328.—The total respiratory exchange, pulse and respiration rates, and systolic and diastolic blood pressures were determined with a human subject in the typical "basal" post-absorptive condition and in 5- and 10-minute periods during which he voluntarily produced an increase in all the factors without apparent visible effort. The increases produced were from 13 to 32% in the oxygen absorption, 17 to 26% in the pulse rate, 9 to 28% in the systolic pressure, and 4 to 27% in the diastolic pressure. These changes were devoid of alterations of affect. Only when he lay practically nude was it possible to detect any indication of effort on the part of the subject. Under the ordinary condition of measurement of basal metabolism the causes for the increased values would have remained obscure. The observations demonstrate that it is possible for a person to maintain himself in a condition that is not basal, but which under the ordinary rules of measurement would be considered as conforming to the usual conditions of basal metabolism measurements. The metabolic rate measured under the usual prescribed basal conditions is therefore not necessarily the basal rate.—*T. W. Forbes* (N. Y. Psychiatric Institute).

1124. Dandy, W. E. The treatment of so-called pseudo-Ménière's disease. *Johns Hopk. Hosp. Bull.*, 1934, 55, 232-239.—Subtotal bilateral section

of the auditory nerves in a patient with pseudo-Ménière's disease provided complete severance of the vestibular branch as shown by negative Bárány tests. The subjective symptoms of dizziness and tinnitus were immediately and permanently (25 days) abolished. Objectively, no symptoms whatever were induced by the abrupt loss of both vestibular receptors. Hearing (audiometric tests), gait, and steadiness were unimpaired at any time. Subjectively, the patient complained of a "wobbling" or turning feeling of the head upon movement, and of an inability to determine the exact position of his head and feet in space.—*D. G. Marquis* (Yale).

1125. Darrow, C. W. The significance of the galvanic skin reflex in the light of its relation to quantitative measurements of perspiration. *Psychol. Bull.*, 1934, 31, 697-698.—Abstract.—*J. F. Dashiell* (North Carolina).

1126. Doi, T. Die "Voraussicht" im Wahlvorgange. (Foresight in the selective process.) *Jap. J. Psychol.*, 1934, 9, 571-614.—*R. Kuroda* (Keijo).

1127. Düker, H. Über die Ablenkungsmöglichkeit bei freier und zwangsläufiger Arbeitsweise. (Concerning the probabilities of diversion in cases of free and of coerced methods of work.) *Arch. ges. Psychol.*, 1934, 92, 141-167.—Having noticed that persons doing free work and those doing work of the coerced type are not equally affected by disturbing influences, the author experiments with this phenomenon. The experiment is carried over twelve daily practice periods of thirty minutes each and measured both quantitatively and qualitatively. Judgments were made by using a mechanical device for recording, and by observations and introspections. The conclusions reveal that the diverting possibilities are greater in the case of free work, concomitant activity being recognized by free-activity workers as disturbance, but not by forced workers. The latter require less will-power, work being of the habituated type, while free work requires more concentration.—*A. B. Herrig* (Michigan Central State Teachers College).

1128. Durost, W. N. The development of a battery of objective group tests of manual laterality, with the results of their application to 1300 children. *Genet. Psychol. Monogr.*, 1934, 16, 225-335.—A target, a pin, an escape, and a treasure test of hand dominance were devised. The battery proved to have a reliability of .76 to .91. By its use, 4¼ to 5% of the children were found to be left-handed. These findings were also checked against a criterion questionnaire. Among results found by the study were the following: Distributions of handedness show "no evidence of being normal curves." The measures of handedness used were positively correlated, the *r*'s ranging from .2827 to 1.00 (corrected for attenuation). Changes in handedness with age were relatively slight, being greater in those tests requiring a high degree of coordination and control. The right-handed group proved to be superior to the left-handed in school achievement and in intelligence tests. The criterion questionnaire promises to be useful in selecting out right- and left-handed subjects for further investiga-

tion. A bibliography of 12 titles accompanies the article.—*F. M. Teagarden* (Pittsburgh).

1129. Fadeyeva, V. K. Obrazovanie uslovnoy svyazi putiom orientirovochno-probovatel'nykh reaktzii. (The formation of conditioned connections by means of trial-and-error reactions.) *Na Putyakh k Izuch. vysshykh Form Neirodin. Reb.*, 1934, 92-116.—Problem-solving and the relation of problem-solving to conditioning were studied in 32 children 3-12 years of age by means of the Ivanov-Smolensky apparatus. In one part of the experiment, candy under a glass cover was shown, and the children had to discover that the pressing of a bulb would secure it; in another part, a similar reaction had to be made not to the sight of the food but to a previously formed conditioned response to a bell; in a third part, the children first formed a conditioned response of pressing the bulb to a bell, but then the candy was kept under the glass cover and could be obtained only by raising a lever. The experimenter states that the observed trial-and-error reactions were stereotyped in the younger and variable in the older children; were based upon previous experience or conditioning; and were at first close in type to those of the natural food-grasping responses, but more remote later. Successful responses led to inhibition and extinction of wrong responses.—*G. H. S. Razran* (Columbia).

1130. Fenning, C. The effect of periodic changes in amplitude of respiration upon blood pressure. *Amer. J. Physiol.*, 1934, 110, 464-470.—The evidence obtained shows that some of the longer regular or irregular waves of blood pressure which are characterized by a relatively rapid fall in blood pressure with a relatively rapid return to normal, may have as their origin the changes occurring in intra-thoracic pressure, and need not be interpreted as being due to changes in vasomotor tone.—*T. W. Forbes* (N. Y. Psychiatric Institute).

1131. Forbes, T. W. The isolation and significance of galvanic response components. *Psychol. Bull.*, 1934, 31, 698.—Abstract.—*J. F. Dashiell* (North Carolina).

1132. Foucault, M. Les lois de l'exercice dans le travail mental. (The laws of exercise in mental work.) *Scientia, Bologna*, 1934, 56, 19-26.—Following the work of O'Hern, the problem arises of determining the increase in work speed when practice is more important than fatigue, and then to study the decrease when the reverse holds true. The basic technique of study of the effect of exercise was one in which the subjects each added up a series of numbers, with appropriate rest periods. Exercise was found to decrease the time in a regular manner; i.e., as a descending limb of an hyperbola expressed by a definite formula. This was verified by other tests. The author found that group starting time could also be plotted in an hyperbolic curve. He has reason to believe that fatigue also follows laws.—*L. S. Selling* (Eloise Hospital).

1133. Freeman, G. L. Insensible perspiration and the galvanic skin response. *Psychol. Bull.*, 1934, 31,

698-699.—Abstract.—J. F. Dashiell (North Carolina).

1134. Gartzstein, N. G. O vegetativnom akkompanimente dvigatel'nykh uslovnykh reflektsov i tormozov u dyetei. (Vegetative components of conditioned motor reflexes and inhibition in children.) *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 206-262.—Cardiac and respiratory changes during the various phases of conditioning were studied in a large number of children 8-10 years of age. Food, picture exposures, and electric shock were used as the conditioning stimuli, and an electric bell as the conditioned stimulus. The results indicate that: (1) respiratory changes are often more sensitive indices of conditioning than somatic; (2) the patterns of changes seem to be specific to the conditioning stimuli: with food they were a rise followed by levelling out, with shock a sudden fall, and with picture exposure a slowing up with a subsequent rise; (3) there were considerable correspondences between the changes of the conditioning and the conditioned stimuli; (4) during the processes of the formation of differential and negative (inhibitory) conditioned responses there were marked changes in the respiratory curves, but after the responses were established such changes disappeared with shock as the conditioning stimulus; (5) very characteristic changes were observed during unconditioning or extinction, the changes remaining even after frequent and intense extinction; (6) cardiac changes were less characteristic.—G. H. S. Razran (Columbia).

1135. Gregg, F. M. The physiological basis of the perception of direction. *Psychol. Bull.*, 1934, 31, 680-681.—Abstract.—J. F. Dashiell (North Carolina).

1136. Halverson, H. M., & Newhall, S. M. Correlations between movements of the eyeball and the eyelid. *Psychol. Bull.*, 1934, 31, 708.—Abstract.—J. F. Dashiell (North Carolina).

1137. Heron, W. T., Hales, W. M., & Ingle, D. J. Capacity of skeletal muscle in rats to maintain work output. *Amer. J. Physiol.*, 1934, 110, 357-361.—Using rats under sodium phenobarbital anesthesia and with the freed tendon of the gastrocnemius muscle attached to a 100-gram weight, contractions were studied for from 10 to 17 days with the nerve intact. The height of initial contraction dropped 30 to 40% in the first 15 minutes, and remained approximately 30% of initial height for the full duration of the experiment. Previous findings of fatigue in 18 to 35 hours with the sciatic severed are attributed to dying of the nerve.—T. W. Forbes (N. Y. Psychiatric Institute).

1138. Hovland, C. I. The differential between stimulus and background in reaction time to light and sound. *Psychol. Bull.*, 1934, 31, 682.—Abstract.—J. F. Dashiell (North Carolina).

1139. Hunt, W. A. The conscious correlates of the galvanic skin response. *Psychol. Bull.*, 1934, 31, 699.—Abstract.—J. F. Dashiell (North Carolina).

1140. Khozak, L. E. Popytka izmeneniya vyskazyvaniya rebyonka putyom eksperimental'noy organi-

zatsii yevy deyatel'nosti. (An attempt to change the verbal reactions of children by an experimental organization of their actions.) *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 405-414.—12 children were shown paper circles of different colors and asked to choose those liked most and those liked least. Conditioned responses with picture exposures as the conditioning stimuli were then formed with the flashing of lights of the colors they liked least, while lights of the most liked colors were differentiated—never reinforced by the pleasant reactions of watching the kaleidoscopic pictures. When the children were asked again which colors they liked most and which least, the order of preference was reversed in 4 children but remained unchanged in the remaining children. In another part of the experiment, 15 children were asked which colors they liked most, and conditioned responses were formed with lights of the liked colors, but the responses were then experimentally unconditioned—never reinforced by the pictures. 10 of the 15 children changed their preferences, choosing colors other than those which were first conditioned and then unconditioned. 5 out of 7 of the children who changed their preferences after the unconditioning resumed their old preferences when the conditioned responses were re-established after the unconditioning.—G. H. S. Razran (Columbia).

1141. King, L. S. "Instinct" as an explanatory concept. *J. abnorm. soc. Psychol.*, 1934, 29, 172-180.—The concept of instinct implies that intervening between certain stimuli and certain responses there is, among other forces, one which is innate, propulsive, and concerned with purposes, ends, or goals. This explanatory concept has been widely attacked. Instinct is of no use in proximal explanation for any specific event; this should be in physico-chemical terms. But as a general term it implies a hormic biology which is a valid concept, not inconsistent with mechanistic data. By insisting on the importance of the goal it unites separate disciplines of biology and forms a unified field of psychobiology where function is stressed. Such a "hormic" can be used as a well-defined explanatory concept, with the merits of generality and absence of inconsistency.—C. H. Johnson (Boston Psychopathic Hospital).

1142. Kotlarevsky, S. [The neurodynamics of conditioned closure forming suddenly in difficult situations.] *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 54-77.—The forming of conditioned associations without previous experience in children was observed under laboratory conditions in two forms: (1) successive trying and searching reactions (trial-and-error method), and (2) sudden, successful reactions (Köhler's insight). In both cases the participation of the previous experience can be stated, and was demonstrated experimentally by artificially arranging the experience necessary for the solution of the problem. Conditioned associations appearing suddenly in the process of synthetic activity of the brain cortex differ qualitatively from the previously imprinted former experience, although being its product. Each new conditioned closure appearing

as the result of trial-question reactions depends on the revival of old conditioned associations which have once under similar conditions been originated in the brain. This revival is produced by positive induction developing as the result of inhibiting the motor conditioned reflex by a hindrance to getting food. The percentage of children able to solve proposed tasks only after preliminary training is in inverse proportion to the age of the children.—A. Yarmolenko (Leningrad).

1143. Kotliarevsky, L. I. Otrazheniye neposredstvennykh uslovykh svyazyey v korkovoy simvolicheskoy proyektzii. (The reflection of direct conditioned connections in the cortical symbolic projection areas.) *Na Putyakh k Izuch. vysshikh Form Neirodin. Reb.*, 1934, 436-450.—Using the Ivanov-Smolensky apparatus, conditioned responses were established in 20 8-10-year-old children to a compound stimulus of lighting a green square and slightly increasing the illumination in the experimental room. After the conditioned responses were well established, both the compound stimulus and each separate component were tried, and the children were asked why they pressed the bulb (the conditioned response). However, while the children as a rule gave some meaningful answer, when the experimenter's questions followed the application of the compound stimulus or the lighting of the green square, the increase in the illumination of the room produced only a weak pressing of the bulb but no meaningful verbal response. As the increase in illumination elicited a verbal response after it had been separately associated with the conditioning stimulus, the experimenter believes that reflection of the weaker component of the compound in the cortical speech area was hindered by the presence of the stronger component and that such "unverbalized" motor reactions are what the psychologist calls "unconscious."—G. H. S. Razran (Columbia).

1144. Kovsharova, V. Opyt eksperimental'novo vozdeystviya na reaktsiyu vybora i svyazannye s neyu vyskazyvaniya rebyonka. (A study in experimentally influencing the verbal choice reactions of children.) *Na Putyakh k Izuch. vysshikh Form Neirodin. Reb.*, 1934, 415-435.—The color preferences of 8 7-9-year-old children were established by means of drawings, objects, and electric lights of different colors. Conditioned responses with food as the reinforcement were then formed to the least liked colors, while the most liked colors were differentiated by never reinforcing them. The color preferences were now reversed, the amount of training required for the reversals differing widely in the different children. In another part of the experiment with 8 children, the most liked colors were associated with biscuits and the least liked with chocolate. As a result, the preference rose for the least liked color in 7 and fell for the most liked color in 6 children. Control experiments for the reliabilities of the ratings were also performed.—G. H. S. Razran (Columbia).

1145. Landmark, J. Über den Triebbegriff. (On the concept of instinct.) *Imago, Lpz.*, 1934, 20, 160-

172.—Katz's "avidity theory" appears in general to be a satisfactory explanation of hunger. By referring hunger to the disturbance of chemical balance as well as to proprioceptive and exteroceptive processes, this theory accounts for the very important specific hungers. A similar theory, based upon chemical balance in connection with nervous activity, may be extended to cover all instincts. In the case of the sex instinct chemical processes make sexual excitation possible, while the adequate stimuli, which may exist in a wide variety, bring it about.—H. D. Spoerl (St. Johnsbury, Vt.)

1146. Marshak, M. E. [The functional changes in man's organism in long muscular work.] *Zh. Fiziol. USSR*, 1934, 17, 853-861.—Easy and middle-grade work evokes a stable state independently of the length of the work process. During the work the catalase is stable, but the fatigue increases and the work ability decreases. The following functional changes occur during the work process: the blood supply, provoked by the static work components, decreases; the skin temperature decreases on the muscles in static strain; the skin temperature increases on the dynamically working muscles, and the perspiration increases.—A. Yarmolenko (Leningrad).

1147. Matson, J. R., & Hitchcock, F. A. Basal metabolism in old age. *Amer. J. Physiol.*, 1934, 110, 329-341.—A series of basal metabolism tests was carried out on eight women ranging in age from 77 to 106 years, and on fourteen men whose ages ranged from 74 to 92. The experimental results compared best with the Harris-Benedict, and were in general below Aub-DuBois and Dreyer standards. An attempt was made to estimate the degree of senility of each of the subjects. With neither the men nor the women was there a clear-cut indication of any relationship between the degree of senility and the metabolic rate. The difference between the sexes was of approximately the same magnitude as that for adults of less advanced age.—T. W. Forbes (N. Y. Psychiatric Institute).

1148. Minut-Sorokhtina, O., Sorokhtin, J., & Turgel, K. [The conditioned vagotropic heart reflex. II. Associated respiratory arrhythmia.] *Zh. Fiziol. USSR*, 1934, 17, 707-717.—The vagotropic heart reflex is based on endogenous organic stimulation (respiratory arrhythmia of Hering). The vagotropic reflex of respiratory arrhythmia, if associated with indifferent or even sympathetico-tropic stimuli, can evoke a conditioned arrhythmia which is displayed at the time of the full expiratory stop. The conditioned arrhythmia is very labile.—A. Yarmolenko (Leningrad).

1149. Naroditskaya, G. D. [The development of new conditioned reflexes in children without preliminary training.] *Na Putyakh k Izuch. vysshikh Form Neirodin. Reb.*, 1934, 4, 31-44.—The problem investigated was the possibility of initiating in a child a new conditioned connection instantly without preliminary training. The experiment was performed on 50 children of different age groups (5-6, 7, 8, 11-12) and followed Ivanov-Smolensky's method of

motor conditioned reflexes, orientation or food reinforcement being used. It was found that the appearance of new conditioned connections in children is possible without preliminary training, i.e., all at once. The appearance of new conditioned connections in a child without preliminary training goes on as a result of a generalization process (static irradiation) on the basis of previous experience. This generalization may be traced in the receptor as well as in the effector, i.e., it relates not only to the conditioned stimulus (light or sound) or to the form of implement used (various forms of bulbs), but also to the kind of motor conditioned reaction, varying according to the change in form and situation of the implement. In the case of originating new conditioned connections without preliminary experience the rate of elaborated conditioned connections increased with the age of the child, indicating age peculiarities. Children aged five to six gave 40% correct answers, those from ten to twelve 80%. The newly attained conditioned connection is of a new quality, as it differs from the previous ones in its signal quality, implement and motor reaction; it arises suddenly, and has a whole and entire structure.—A. Yarmolenko (Leningrad).

1150. Penn, K. M. [Concerning the formation of effective and inhibitive habits by imitation.] *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 119-134.—The author tries to solve the problem of the possibility of obtaining quite new and previously absent conditioned reflexes in the child by imitation. The experiment was performed on 60 children from 8 to 9 years old. It was arranged in three different variations, the forming of conditioned reflexes being obtained by: (1) direct or simultaneous imitation, (2) success or trace imitation, and (3) generalized imitation. The following conclusions were drawn: the development of new conditioned imitative connections can be obtained by all three ways mentioned above. In many cases of unsuccessful forming of new conditioned connections in children, the conditioned reflex easily appears on the basis of imitation. In the case of generalized imitation the new conditioned connection differs from the primary form resembling it only in general.—A. Yarmolenko (Leningrad).

1151. Piaget, J. *El juego simbólico*. (Symbolic play.) *Arch. Neurobiol.*, 1934, 14, 357-362.—There are three types of play—sensory-motor exercise, regulated play, and symbolic play. The first is practiced by young animals and infants, the second is essentially social, the third is manifested by infants after the second year. Symbols used in play are individual, not social. Symbolic play is individual, since it assimilates objects functionally and subjectively; and structurally the symbols are individual and concrete, not collective and conceptual.—R. M. Bellows (Ohio State).

1152. Polosina, L. V. *Issledovanie uslovykh refleksov na sinteticheskiye razdrazhiteli i differentsirovaniye ikh*. (The investigation of conditioned reflexes to synthetic stimuli and their differentiation.) *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 117-130.—The speed of "verbal" conditioning—subjects told to press a bulb shortly after the giving

of some conditioned stimulus—was found to be faster in a group of 10 normal 8-year-old children than in a group of 9 retarded (2-2.5 years by Terman-Binet) children of the same age. The mean number of trials for the formation of a simple positive conditioned response to a bell was 4.5 for the normal and 12.9 for the retarded group, while for the formation of a negative conditioned response to a bell plus a lamp the respective means were 5.7 and 27 trials. The differences between the groups were even more pronounced when 15 different synthetic, or compound, stimuli and their differentiations were tried. The given means are: 1.2, 4.3, 4.3, 3.7 trials for the normal group, with respective means of 12.6, 13.5, 20.2, and 20.2 for the retarded children. The retarded children are also reported to have shown more "disturbances" during difficult differentiation tasks than the normal group.—G. H. S. Razran (Columbia).

1153. Posnanskaya, S. [The influence of chronic inhibition of the conditioned food reflexes on orientative-investigatory reflexes.] *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 4, 188-205.—The chronic inhibition of the system of the food reflex influences the system of the orientative conditioned reflexes, changing their strength and their latent period. These changes consist of two phases, the first of inhibition or depression, and the second of excitation. They are based on the mechanism of irradiation and induction of inhibition, described by I. P. Pavlov. The phenomenon of intensification of the orientative activity can be explained as a phase of stable positive induction.—A. Yarmolenko (Leningrad).

1154. Poznanskaya, I. B. *O vzaimodeystvii uslovykh svyazyey rebyonka, poslyedovatel'no obrazovannykh na odno i to zhe razdrazhenie*. (The interactions of conditioned connections successively formed on the basis of the same stimulus in children.) *Na Putyakh k Izuch. vysshikh Form Neurodin. Reb.*, 1934, 263-271.—Conditioned responses to a bell with food as the conditioning stimulus were formed in 17 children, 6-8 years of age. When the responses were well established (100 consecutive successes) they were experimentally unconditioned until no reactions were given 10 times in succession. New conditioned responses to the bell with picture exposure as the conditioning stimulus were then formed in the same children, and, when the new responses were experimentally unconditioned, 5 of the 17 children began giving the old unconditioned food responses. Similar results of the return of an old extinguished response upon the extinction of a substituted new response were observed in 3 of 15 children whose old responses were reinforced with picture exposures and the new with food; in 5 of 10 children whose old responses were the pressing of a bulb and the new the pulling of a cord; and in 4 of 10 children with whom verbal conditioning or associations were tried. The experimenter suggests that this mechanism plays a significant role in the ontogenesis of habits as well as in their cortical analyses.—G. H. S. Razran (Columbia).

1155. Pressman, J. M. *Popytka obrazovaniya uslovnogo refleksa u dyetey pri predshestvovanii podkrepyeniya signalu*. (An attempt to form condi-

tioned reflexes in children by reinforcing before the signal [backward conditioning].) *Na Putyakh k Izuch. vysshykh Form Neirodin. Reb.*, 1934, 131-165.

—A carefully controlled experiment on backward conditioning in 15 children by 4 different techniques: Ivanov-Smolensky food reinforcement, Ivanov-Smolensky picture exposure reinforcement, Ivanov-Smolensky verbal reinforcement, and ordinary withdrawing from electric shock. The criterion for failure to form a conditioned response was 90 unsuccessful trials. With food as the reinforcement none of the 4 children tested was successful, the stimuli to be conditioned acquiring negative characteristics which subsequently interfered with their forward conditioning. With picture exposure as the reinforcement, 2 of the children failed but the third formed an unstable conditioned response. With verbal conditioning, 3 children formed the conditioned responses and 2 failed. With shock as the conditioning stimulus, no conditioned responses were formed in 2 children, but the third formed an unstable response. The backward conditioned responses formed are said to disappear with further training and to acquire negative characteristics. They also are likely to cause "disturbances" in the child's cortex.—*G. H. S. Razran* (Columbia).

1156. Rel, N., Kekcheev, K., & Pashukanis, A. [The exactness of hand movements.] *Zh. Fiziol. USSR*, 1934, 17, 862-868.—The exactness of hand movements in the blind is relatively high, but lower than in normal subjects. The difference can be explained by the exclusion of the controlling role of sight. The normally sighted man associates the joint-muscle sense with sight. The perception of the blind is one-sided. The exactness of hand movements changes in dependence on the space and the direction of movements. The zones of best movement exactness are different in blind and normal men.—*A. Yarmolenko* (Leningrad).

1157. Roberts, S. O., & Carmichael, L. The judgment of manual expression. *Psychol. Bull.*, 1934, 31, 680.—Abstract.—*J. F. Dashiell* (North Carolina).

1158. Ruch, T. C., & Watts, J. W. Reciprocal changes in reflex activity of the fore limbs induced by post-brachial "cold-block" of the spinal cord. *Amer. J. Physiol.*, 1934, 110, 362-374.—In an investigation of the cephalad effects of spinal transection, the ipsilateral reflex of a flexor muscle and the stretch reflex of an extensor muscle of the fore limbs have been recorded from "isolated" muscles by an optical isometric myograph after surgical transection and after functional block of the spinal cord by cooling and by novocaine. The excitability of the stretch reflex of an extensor muscle of the fore limbs is augmented by blocking spinal conduction below the brachial enlargement. The excitability of the ipsilateral reflex of the antagonistic flexor muscle is decreased by the same procedure. These changes are due to interruption and not irritation of ascending tracts, because they are produced by functional block of the spinal cord by cooling or narcotization and by surgical transection combined with narcotization of

the rostral cut end of the spinal cord. They are, therefore, interpreted as cephalad "release" and depression phenomenon respectively, such as occur below a spinal transection. The complete syndrome of mid-thoracic transection of the spinal cord in the decerebrate cat includes reciprocal changes in reflex activity between flexor and extensor muscles of the fore limbs, between flexors and extensors of the hind limbs, between flexors of the fore and hind limbs, and between extensors of the upper and lower limbs. The basis of the neural balance is discussed and the relative importance of ascending impulses is pointed out.—*T. W. Forbes* (N. Y. Psychiatric Institute).

1159. Shelton, E. K., Cavanaugh, L. A., & Evans, H. M. Hypophyseal infantilism, treatment with an anterior hypophyseal extract. Preliminary study. *Amer. J. Dis. Children*, 1934, 47, 719-736.—The subjects of this study were six children of arrested development, presumably due to secretory deficiency of the anterior hypophysis; four girls, aged from 9 years 8 months, to 14 years 9 months, with intelligence quotients from 81 to 130; two boys aged 11 years 5 months, intelligence quotient 98, and 13 years 2 months, intelligence quotient 85. Growth was stimulated by the intragluteal administration of a growth-stimulating fraction of the anterior hypophysis. Although the results were encouraging, the stimulation of growth was proved in only one subject. A year or more of observation of the other subjects is necessary in order to verify the findings.—*V. M. Jones* (Boston Psychopathic Hospital).

1160. Simeone, F. A., & Rosenblueth, A. The electrical excitability of the nictitating membrane. *Amer. J. Physiol.*, 1934, 110, 399-409.—The innervated nictitating membrane of the cat was stimulated by means of condenser discharges of various capacities and intensities. The distributions of voltage thresholds (capacity constant) and of duration thresholds (response constant) and the voltage-duration curves (response constant) all presented breaks denoting two components: γ and α . The quantity-duration curves likewise presented breaks. The average excitation times were 0.3 for the γ and 0.75 for the α component. The arguments presented by Lapicque against the physiological significance of the excitability of skeletal muscle are discussed. It is concluded that in the present experiments the size of the electrodes is not responsible for the α excitability, that there is no correlation between chronaxy and contraction time, that the excitability is physiological and corresponds to the muscle, and that nerve and muscle may be heterochronic in a non-iterative system.—*T. W. Forbes* (N. Y. Psychiatric Institute).

1161. Sinkievich, Z. L. O diffuznoy i spetsializirovannoy formakh uslovnoy motoriky u dyetey. (Diffuse and specialized forms of conditioned motor responses in children.) *Na Putyakh k Izuch. vysshykh Form Neirodin. Reb.*, 1934, 166-187.—The Ivanov-Smolensky apparatus was modified to enable objective recording of individual fingers of the contralateral hand and of the feet during the children's conditioned pressings of the rubber bulbs, and the effect or charac-

teristics of the conditioned responses were thus studied in 30 children 9-11 years of age. Some children showed very specialized responses (with only the middle fingers) while the responses in others were very diffuse, involving not only the conditioned hand but also the contralateral hand and the feet. The diffusion, or spread, was as a rule more common in the first periods of training the conditioned responses, but cases of a reverse order, when the responses were restricted at the beginning and became diffuse with training, also occurred. In general, the children may be divided into four types in accordance with their effector characteristics: always diffuse, always restricted, restricted at first and diffuse later, diffuse at first and restricted later. On the whole children with diffuse effector characteristics showed also generalized receptor characteristics (responding readily to similar stimuli), while children with restricted effector responses exhibited specificity in their receptors, but the relationships were by no means clear-cut.—*G. H. S. Razran* (Columbia).

1162. Skinner, B. F. A discrimination without previous conditioning. *Proc. Nat. Acad. Sci., Wash.*, 1934, 20, 532-536.—The author describes an experiment with white rats in which he investigated the effect of the elimination of one of two conditioned stimuli. He states, "If two stimuli differing with respect to the property L, are conditioned to elicit a common response R, a discrimination may be established by extinguishing the response to one of them while continuing to reinforce the response to the other. The extinction interferes with the reinforcement through induction to an extent determined by the degree of community of properties of the stimuli."—*W. N. Hallett* (Cedar Crest).

1163. Smolenskaya, E. P. O slovesnykh simvolakh uslovno i differentsirovannovo razhdrazhitel'ey. (Verbal symbols of conditioned and differential stimuli.) *Na Putyakh k Izuch. vysshykh Form Neirodin. Reb.*, 1934, 304-315.—Conditioned responses to a blue light were formed in 12 children 9-10 years of age, and were differentiated from a green light; in 3 of the children compound conditioned responses to the successive flashing of red, white, and yellow lamps were also formed, and were in turn differentiated from a reverse order of presentation (yellow, white, and red lamps). The speed of formation of the responses ranged from 2 to 44 trials, with a median of 7 trials. When the conditioned responses and their differentiations were well established, the sounding of the corresponding words (blue light; green light; red, white, yellow; yellow, white, red) was tried. The results indicate that in at least 6 of the 12 subjects the words had the same effects as their corresponding stimuli. Neutral words had as a rule no effect, but there were at times confusions in the names of the different colors. In certain cases the names of the stimuli attained their effect only after the first application, probably indicating a preliminary conscious association. The conditioning was by means of the Ivanov-Smolensky device of pressing a bulb to obtain food.—*G. H. S. Razran* (Columbia).

1164. Steinberg, J. Relation between basal metabolism and mental speed. *Arch. Psychol., N. Y.*, 1934, No. 172. Pp. 39.—The problem of the present investigation was to determine whether in normal individuals there is a relationship between basal metabolic rate and mental speed. Basal metabolism was determined by means of a modified Benedict-Roth respiration apparatus. Mental speed was measured by six tests: a counting test, an arithmetic test, an easy directions test, a code test, and a tapping test. The 39 subjects were all young girls in a Hebrew orphan asylum. Intercorrelations of the speed tests ranged from .41 to .72; intercorrelations between speed measures and basal metabolic rate ranged from -.14 to -.41. It is very probable that the negative trend of the correlations is significant, but considering the results of other investigators the result must be interpreted with caution.—*E. M. Achilles* (Columbia).

1165. Telford, C. W. Some uniform post-stimulation phenomena in a variety of human activities. *Psychol. Bull.*, 1934, 31, 707-708.—Abstract.—*J. F. Dashiell* (North Carolina).

1166. Traugott, N. N. Vzaimootonosheniya neposredstvennoy i simbolicheskoy proyektzii v protsesse obrazovaniya uslovnogo tormoza. (The interrelations of immediate and symbolic projections in the process of the formation of conditioned inhibition.) *Na Putyakh k Izuch. vysshykh Form Neirodin. Reb.*, 1934, 273-303.—Conditioned positive responses to a bell and conditioned negative responses to a bell plus a blue light were formed in 20 children 7-9 years of age. When the sounding of the words "blue, blue" was substituted for the lighting of the blue lamp, the conditioned responses were absent in 70% of the cases, diminished in 10%, and remained unaffected in 20% of the cases. The sounding of indifferent words ("high wall, samovar," etc.) inhibited the responses in 20% of the cases, while the sounding of the word "red, red" stopped the reflexes in 40% of the cases, and the actual lighting of the red lamp stopped the conditioned response in 60%, diminished it in 6%, and produced no effect in 34% of the cases. The sounding of the words "blue, blue" was, however, more effective in stopping other conditioned responses than the actual lighting of the blue lamp, the respective inhibitions being 88% and 50%. The speed of formation of the conditioned responses ranged from 2 to 62 in the positive and from 1 to 36 trials in the negative responses, with respective medians of 11.5 and 6 trials.—*G. H. S. Razran* (Columbia).

1167. Traugott, N. N., & Fadeyeva, V. K. O vliyaniy zatrudnionnogo ugasheniya pishchedobvativnykh uslovnnykh reflektsov na obshcheye i rechevoye povedenie rebyonka. (The effect of difficult extinction of food-procuring conditioned reflexes upon the general and speech behavior of children.) *Na Putyakh k Izuch. vysshykh Form Neirodin. Reb.*, 1934, 316-403.—This is an extensive experiment on complicating the process of experimental unconditioning and on changes in "free-association" values of names of stimuli that have been conditioned and unconditioned. First, positive conditioned responses

to a bell, a whistle, and light, and a negative response to the whistle plus a tactile stimulus, were formed in 13 7-year-old children. Then, the process of experimental unconditioning was made irregular in the following two ways: showing the food but commanding the children not to take it, in 8 subjects; showing the food but electrically shocking the children when they obtain it, with 5 subjects. Finally, using the "free-association" method, the latencies and responses to the names of the various conditioned and conditioning stimuli compared with neutral words were ascertained during the various stages of the experiment; the general and speech reactions of the subjects were also taken throughout. The results indicate: (1) there was great irregularity in the process of unconditioning, indicated by wave-like curves of unconditioning, general restlessness, increased talkativeness, and bringing in of various investigatory reactions; (2) while temporary unconditioning in any one experimental session was faster than with usual methods of unconditioning, permanent unconditioning was very much retarded; (3) after permanent unconditioning set in, it was much generalized to other stimuli, and even interfered with the formation of new conditioned responses; (4) on the whole the "free-association" latencies of the names of stimuli that had been unconditioned increased, while the responses changed in quality, becoming genetically older; (5) the formation of a conditioned response to some stimulus seems to tend to decrease its "free-association" latency. As the name of a stimulus that has become unconditioned seems to have characteristics similar to those of "complex-indicator" words, the experimenter suggests that his investigation reveals some of the cortical factors in psychoanalytic mechanisms.—G. H. S. Razran (Columbia).

1168. White, M. M. The effect of various instructions upon electrical resistance. *Psychol. Bull.*, 1934, 31, 700.—Abstract.—J. F. Dashiell (North Carolina).

[See also abstracts 1039, 1070, 1107, 1109, 1110, 1172, 1194, 1211, 1237, 1466, 1479, 1480, 1485, 1494, 1502, 1507.]

PLANT AND ANIMAL BEHAVIOR

1169. Beniuc, M. *Invatarea si inteligenta la animale*. (Animal learning and intelligence.) Cluj, Rumania: Inst. de Psichol. Univ. Cluj, 1934. Pp. viii + 88. Lei: 50.—The behavior of the fighting fish (*Betta splendens* Regan) was experimentally investigated. The fish was separated from food by a glass, perforated so that the fish can reach the food. It has to learn to find this way. Different changes are effected. Conclusions: (1) the fish learns rather easily and quickly to reach the food; (2) chance seems to play a rather important role; (3) after the first successful act the fish succeeds quickly in avoiding errors; (4) the learning process seems to be based mainly on kinesthetic movements, and after that on vision; (5) when the way is changed the animal seeks for older ones and only after that seeks for the new one; (6) from two indirect ways the unknown one is always discarded; (7) the fish is able to follow the

learned way even when obliged to spring out of water; (8) the behavior does not seem to be strictly mechanical; (9) the explanation of the behavior seems to support mainly Uexkull's and the Gestalt theories. A German résumé is given at the end of the book.—N. Margineanu (Paris).

1170. Carpenter, C. R., & Nissen, H. W. An experimental analysis of some spatial variables in delayed reactions of chimpanzees. *Psychol. Bull.*, 1934, 31, 689.—Abstract.—J. F. Dashiell (North Carolina).

1171. Davidson, F. A. The homing instinct and age at maturity of pink salmon (*Oncorhynchus gorbuscha*). *Bull. U. S. Fish. Comm.*, 1934, 48, No. 15, 27-39.—Based on returns of marked salmon, it is tentatively concluded that "The extent to which pink salmon return to their parent streams to spawn may be dependent upon the proximity of other pink-salmon streams in the vicinity." The evidence further indicates that the first return to spawn is at two years of age.—C. M. Louttit (Indiana).

1172. Forster, M. C. Temporal relations of behavior in chimpanzee and man as measured by reaction time. *Psychol. Bull.*, 1934, 31, 690-691.—Abstract.—J. F. Dashiell (North Carolina).

1173. Haig, C. The spectral sensibility of *Avena*. *Proc. Nat. Acad. Sci., Wash.*, 1934, 20, 476-479.—"Young oat (*Avena*) seedlings when exposed to light unilaterally respond by bending toward the light. The relation between the intensity of the light and the reaction time for the bending shows two parts which occur at different energy levels. The anatomical separation of the two sections of the response curve indicates that there are two photosensory systems in the young oat." In order to specify the two systems, the author has measured their spectral sensitivity in detail. Two figures are given in the text.—W. N. Hallett (Cedar Crest).

1174. Holth, S. The phenomenal visual acuities of the European chimney swallow. *Brit. J. Ophthal.*, 1934, 18, 703-704.—An incidental field observation.—R. J. Beitel, Jr. (Clark).

1175. Jackson, T. A. The use of tools in problem solving by the chimpanzee. II. *Psychol. Bull.*, 1934, 31, 689-690.—Abstract.—J. F. Dashiell (North Carolina).

1176. Jacobsen, C. F., & Wolfe, J. B. An experimental analysis of frontal lobe function in monkeys and chimpanzees. *Psychol. Bull.*, 1934, 31, 692.—Abstract.—J. F. Dashiell (North Carolina).

1177. Krechevsky, I. Brain mechanisms and "hypotheses" in the rat. *Psychol. Bull.*, 1934, 31, 693.—Abstract.—J. F. Dashiell (North Carolina).

1178. Maier, N. R. F. The pattern of cortical injury in the rat and its relation to mass action. *Psychol. Bull.*, 1934, 31, 693-694.—Abstract.—J. F. Dashiell (North Carolina).

1179. Maslow, A. H. Dominance and social behavior of monkeys. *Psychol. Bull.*, 1934, 31, 688.—Abstract.—J. F. Dashiell (North Carolina).

1180. Ri, C. S. On the number discrimination in pigeons. *Acta psychol. Keijo*, 1934, 2, 76-83.—Three pigeons were used to determine whether they could discriminate between different numbers of sound strokes. The method of procedure was analogous to that of Kuroda's former studies on the counting ability of a monkey, except that an electric shock was given at the end of the sound stimuli, and a conditioned reflex between a definite number of sound strokes and the withdrawing reflex of one leg was established in the test animals. The conditioned reflex became stable after 1400-2600 trials. Two (Nos. 2 and 3) of the three birds succeeded in differentiating numbers: No. 2 discriminated three from one and two, and No. 3 two from one. Retroactive inhibition played a great part when a new habit was established. The conditioned reflex lasted, however, after one month.—R. Kuroda (Keijo).

1181. Richter, C. P. Pregnancy urine given by mouth to gonadectomized rats: its effect on spontaneous activity and on the reproductive tract. *Amer. J. Physiol.*, 1934, 110, 499-512.—T. W. Forbes (N. Y. Psychiatric Institute).

1182. Schole, H. Die Ausbildung rhythmisch-motorischer Funktionen beim Haushuhn. (The development of rhythmic motor functions in the hen.) *Z. Psychol.*, 1934, 132, 289-303.—By means of a movable board in front of a cage hens were trained to peck at grains according to certain fixed rhythms. A psychological analysis of the function is made, and certain significant individual differences are discussed.—R. B. MacLeod (Swarthmore).

1183. Spence, K. W. Systematic versus random responses in the solution of multiple choice problems by the chimpanzee. *Psychol. Bull.*, 1934, 31, 688-689.—Abstract.—J. F. Dashiell (North Carolina).

1184. Sumner, F. B. Does "protective coloration" protect? Results of some experiments with fishes and birds. *Proc. Nat. Acad. Sci., Wash.*, 1934, 20, 559-564.—"It seems evident, in view of these facts, that fishes which harmonize in shade with their immediate surroundings are less likely to be eaten by birds than fishes of the same species which do not so harmonize." A tabulation of results is given in the text.—W. N. Hallett (Cedar Crest).

1185. Wendt, G. R. Auditory acuity of monkeys. *Comp. Psychol. Monogr.*, 1934, 10, No. 4. Pp. 51.—In this investigation the monkey was to open a drawer containing food whenever an oscillator tone was present and to refrain from opening the drawer when the oscillator tone was absent. A readiness signal was the raising of a curtain which had separated the animal from the drawer. Extraneous stimuli were carefully controlled. The tone was assumed to have been heard whenever the animal opened the drawer during its presence and refrained during the control tests in which it was absent. Pure tones of from 64 to 16384 cycles were used. When the auditory acuity of five monkeys was compared with that of five human subjects tested under somewhat similar circumstances the monkeys equalled the humans from 64 to 1024 cycles, were slightly inferior

at 2048 cycles, were markedly inferior at 4096 cycles, and were superior at 8192 and 16384 cycles. The results at 4096 and 8192 cycles are comparable with those found by Elder for the chimpanzee. Reaction time increased as the intensity of the tone decreased. Bibliography.—N. L. Munn (Pittsburgh).

1186. Yerkes, R. M. Chimpanzee-culture and psychobiological research. *Psychol. Bull.*, 1934, 31, 669.—Abstract.—J. F. Dashiell (North Carolina).

[See also abstracts 1080, 1105, 1114, 1137.]

EVOLUTION AND HEREDITY

1187. Byrns, R. The mental ability of twins. *Sch. & Soc.*, 1934, 40, 671-672.—In a Wisconsin public and private school survey 28,383 seniors and 32,676 sophomores were given the Henmon-Nelson Test of Mental Ability, Form B. Among those surveyed were 188 pairs of twins. The median percentile rank of the twins was 10 points lower than the median percentile of all students tested. The twin pairs of opposite sex and the boy pairs approached the total high school group standard closely (within 4 points), but the members of the girl pairs earned a median percentile rank of only 36. The girl twins resembled each other more than did the boys, the twins of opposite sex resembling each other least.—H. L. Koch (Chicago).

1188. Nemzek, C. L., & Finch, F. H. Education of parents and intelligence of children. *Psychol. Clin.*, 1934, 22, 263-269.—After a review of the literature the author reports a study made on six groups of students ranging in educational status from the seventh grade to beyond high school. The groups vary in size but are all fairly large. The intelligence of the students, as measured by tests, is correlated with the education of their parents. The r values center about .2. The homogeneity of the group studied suggests that this value may be somewhat lower than that typical of the general population.—J. T. Metcalf (Vermont).

1189. Reiner, R. C. Rasse, Vererbung und Charakter. (Race, heredity and character.) Leipzig: Deutsches Verlaghaus Bong, 1934. Pp. 115. RM. 4.80.—R. R. Willoughby (Clark).

1190. Schecher, L. Ueber die Grösse der Familien von Idioten. (The size of families of idiots.) Würzburg: Mayr, 1934. Pp. 11.—R. R. Willoughby (Clark).

1191. Schou, H. I. Sterilisasjon of sindssyke og abnorme i Tyskland. (Sterilization of the mentally ill and abnormal in Germany.) *Ugeskr. Laeg.*, 1934, 96, 1125-1126.—Brief outline of the German sterilization law of July 14, 1933. Persons belonging to the following categories are subject to the law: (1) inherited feeble-mindedness, (2) schizophrenia, (3) circulatory manic-depressive psychoses, (4) hereditary epilepsy, (5) Huntington's chorea, (6) hereditary blindness, (7) hereditary deafness, (8) extreme hereditary physical defects, (9) chronic alcoholism. Application for sterilization can be sent by the person himself, his guardian, an official physician, or the director of an institution (criminal or medical). The

case is decided by a court, consisting of a judge, an official physician, and a specialist in eugenics. The prescribed operation consists in cutting the vas deferens or fallopian tubes, the testes and ovaries being left intact. According to German statistics for 1932, 400,000 would fall within the jurisdiction of the law (definitely feeble-minded 60,000, borderline feeble-minded 120,000, schizophrenics 70,000-80,000, manic-depressive psychotics 20,000-25,000, hereditary epileptics 60,000, hereditary blind, hereditary deaf, etc.). In the rest of the article, the writer discusses the opinions of outstanding German psychiatrists.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1192. Schuckmann, M. v. Ueber die Grösse der Hilfsschülerfamilien in Würzburg. (The size of families of special-class children in Würzburg.) Würzburg: Mayr, 1934. Pp. 15.—*R. R. Willoughby* (Clark).

[See also abstract 1022.]

SPECIAL MENTAL CONDITIONS

1193. Bálint, A. Über eine besondere Form der infantilen Angst. (Concerning a special form of infantile anxiety.) *Z. psychoanal. Pädag.*, 1933, 7, 414-417.—The infant's fear of falling may be interpreted as follows: Falling is an experience which brings direct realization of the dependence upon the surroundings. It is a traumatic event which, like birth, suddenly separates the self from the environment. This fear for the self later unites with the fear of loss of love, for the latter also signifies a threat to one's existence. Education makes use of this fear for its own purposes. However, abuse of this method may endanger the child's adaptation to reality, in that the fear of loss of affection may supplant the fear of real danger. The child may thus believe that he need only be good and obedient and no harm can befall him. With the child's developing comprehension of reality, education should strive rather to separate these two fears than to bind them more closely together.—*J. J. Carlson* (Aurora-on-Cayuga, N. Y.).

1194. Bonaparte, M. Introduction à la théorie des instincts. (Introduction to the theory of instincts.) *Rev. franç. Psychanal.*, 1934, 7, 217-271.—This paper describes the Freudian theories of infantile and adolescent psychosexual development.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1195. Bugard, P. L'interprétation psychanalytique du mythe d'Orphée et son application au symbolisme musical. (The psychoanalytic interpretation of the myth of Orpheus and its application to musical symbolism.) *Rev. franç. Psychanal.*, 1934, 7, 320-371.—The paper reviews the origin and development of the myth of Orpheus, gives psychoanalytic interpretations, and relates these to the emotional factors entering into musical composition.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1196. Burlingham, D. T. Mitteilungsdrang und Geständniszwang. (The disclosure impulse and the confession compulsion.) *Imago, Lpz.*, 1934, 20,

130-143.—There exists in both normal and abnormal forms a disclosure impulse that is distinct from the confession compulsion which Reik investigated. The latter is instigated by feelings of guilt and the need for punishment. The disclosure impulse is a positive tendency. It is motivated by exhibitionism and begins in the child's desire to share pleasurable interests and discoveries with the adult who has stood for the gratification of his early needs. The pleasurable interests belong to the phases of sexual development and are therefore forbidden. Despite this fact the impulse persists and is indirectly expressed. Clowning and the use of "gibberish" languages are among the disguises used, and the impulse is seen in adolescents as well as young children.—*H. D. Spoerl* (St. Johnsbury, Vt.).

1197. Buxbaum, E. Angstäusserungen von Schulmädchen im Pubertätsalter. (Anxieties expressed by adolescent girls.) *Z. psychoanal. Pädag.*, 1933, 7, 401-409.—Of a group of 30 school girls who had entered puberty, 28 confessed to some form of fear. These fears could be grouped as follows: anxiety regarding menstruation (not unmingled with pleasurable anticipation); fear of walking alone on the street, particularly after dark (fear of desired seduction); and anxiousness at evening (which becomes a neurotic symptom when it develops into a fear of going to bed or of going to sleep); this last-mentioned form of anxiety has as its basis the fear of yielding to masturbation. Each of these fears proceeds from sexual excitement. In addition there were some children who expressed a general, indefinite state of anxiety, symptomatic of an actual neurosis. The degree of anxiety which the child can tolerate depends somewhat on constitutional factors (Freud). Whether the fear is the expression of a normal pubertal conflict or of a neurosis depends on the absence or presence of symptoms. To allow the self some pleasure and at the same time to tolerate a certain degree of anxiety appear necessary and "normal" for the overcoming of pubertal difficulties.—*J. J. Carlson* (Aurora-on-Cayuga, N. Y.).

1198. De Saussure, R. Über genetische Psychologie und Psychoanalyse. (On genetic psychology and psychoanalysis.) *Imago, Lpz.*, 1934, 20, 282-315.—The conclusions of Piaget, Bovet, and their school coincide to a certain extent with the developmental conceptions of psychoanalysis. Since the purposes and methods of the two schools are very different, this agreement is supplementary rather than a duplication. Examination of the two theories in regard to several particular items, such as the passage from one phase of development to another, fixation at a given phase, the development of moral ideas, etc., shows this supplementary agreement when the terms are translated. On the whole the Freudian conceptions are special cases (not always abnormal) of more general developments in genetic psychology. The logic of the phallic phase, for instance, is a sample of infantile logic in general. Freud's "identification" is a special case of Piaget's "egocentrism."—*H. D. Spoerl* (St. Johnsbury, Vt.).

1199. Duff, J. F. G. Schneewittchen. Versuch einer psychoanalytischen Deutung. (Snow-White. A suggested psychoanalytical interpretation.) *Imago, Lpz.*, 1934, 20, 95-103.—The fairy tale of Snow-White's sojourn among the seven dwarfs may be interpreted psychoanalytically as an echo of certain puberty rites practiced by primitive peoples. Other items in the story of Snow-White represent unconscious tendencies. These include narcissism, identification, the Oedipus conflict, sadism. As concealed in the story, many of these items appeal to children's suppressed wishes.—H. D. Spoerl (St. Johnsbury, Vt.)

1200. Erickson, M. H. A brief survey of hypnotism. *Med. Rec.*, N. Y., 1934, 140, 609-613.—In a brief historical sketch the work of Mesmer, Elliotson, Esdaille, and Braid is discussed. A brief account of methods of hypnotic trance induction follows, with emphasis upon the technique of graduated persuasive suggestion. The author then discusses various explanatory aspects in which he treats of the popular misconceptions regarding hypnotism, and he discredits the possibility of harm to the subject, the belief in "will power," and the possibility of felonious use of hypnotism. There follows a description of the phenomena of hypnotism in which there is a discussion of cooperation, rapport, suggestibility, catalepsy, post-hypnotic suggestion, hypnotic amnesias, and somnambulism. The author concludes with a brief discussion of the application of hypnotism, in which he describes its use and possibilities as well as objections in general medical and surgical practice. He emphasizes its value in psychological medicine and particularly its value as an experimental approach to personality problems.—M. H. Erickson (Eloise Hospital).

1201. Fenichel, O. Analyse einer Namensverwechslung nach zwanzig Jahren. (Analysis of a name misplacement after twenty years.) *Imago, Lpz.*, 1934, 20, 231-234.—H. D. Spoerl (St. Johnsbury, Vt.)

1202. Freud, S. La négation. (Denial.) *Rev. franç. Psychanal.*, 1934, 7, 174-177.—This is a translation of one of Freud's papers which originally appeared in *Imago* in 1925. Negation or denial serves repression or pleasure in destruction, and judgment can function according to freedom from repression and independence of pleasure in destroying.—P. Blanchard (Philadelphia Child Guidance Clinic).

1203. Friedjung, J. Angst in der Kindheit und als Problem des Kinderarztes. (Anxiety in childhood and as a problem for the pediatrician.) *Z. psychoanal. Pädag.*, 1933, 7, 410-413.—The development of fear in childhood is outlined. The child first experiences fear during the traumatic experience of birth. The relationship between the mother and the satisfaction of wants is soon recognized. Anxiety over the disappearance of the loved person is evidenced. This develops later into fear of the dark, even though the mother be present but not visible; then into fear of certain situations, persons, animals, objects, sensations and experiences. The castration complex and feelings of guilt over masturbation also produce anx-

ious behavior. Pavor nocturnus, more frequent among boys than among girls, has been insufficiently studied. It should be the task of education to free the child from his fears before a neurosis may develop.—J. J. Carlson (Aurora-on-Cayuga, N. Y.)

1204. Hesnard, A. Nouvelle contribution psychanalytique à l'étude des sentiments dits de dépersonnalisation. (New psychoanalytic contribution to the so-called sentiments of depersonalization.) *Rev. franç. Psychanal.*, 1934, 7, 272-281.—The viewpoints of other investigators are briefly reviewed, a case of the writer's is presented, in part, and the conclusion is reached that depersonalization results from disturbance of the whole affective life, is pre- or parasexual rather than sexual in origin.—P. Blanchard (Philadelphia Child Guidance Clinic).

1205. Jenness, A. A comparative study of sleep and hypnosis by means of the electrocardiograph and the pneumograph. *Psychol. Bull.*, 1934, 31, 712.—Abstract.—J. F. Dashiell (North Carolina).

1206. Kielholz, A. Rätsel und Wunder der Heilung. (Mystery and miracle in healing.) *Imago, Lpz.*, 1934, 20, 173-189.—The use of thermal and medicinal baths is a nearly universal characteristic of cults and ceremonies of healing. It may be found in the Aesculapian tradition, in connection with humoral pathology in ancient times, in the practices of ancient and primitive religions and of modern religious healing. It is related to sacrifice and redemption. The generic significance of such bathing is the symbolic wish to be reborn in the mother's womb. The symbolism is embodied in the coloration and architecture of artificial thermal baths, and in other ways. In its deeper reaches the practice bespeaks an age-old conviction that the rebirth amounts to more than merely mental regeneration and cure.—H. D. Spoerl (St. Johnsbury, Vt.)

1207. Laforgue, R. Clinique psychanalytique: Les débuts d'un traitement analytique. (Psychoanalytic practice: the opening of an analytic treatment.) *Rev. franç. Psychanal.*, 1934, 7, 178-196.—There are fairly detailed discussions of the first interviews with a 28-year-old male patient in terms of the techniques which enabled this patient to decide on undertaking psychoanalytic treatment.—P. Blanchard (Philadelphia Child Guidance Clinic).

1208. Loewenstein, M. R., Laforgue, R., & Odier, C. A propos de la communication de M. Staub. (On the communication of M. Staub.) *Rev. franç. Psychanal.*, 1934, 7, 309-318.—A discussion of Staub's paper in which material was given to support Reich's views on analytic techniques is here undertaken by three analysts. Loewenstein agrees that resistances due to character traits should be analyzed as they are encountered in the analysis, but does not think this can be invariably the systematic procedure at the beginning of an analysis with every patient. LaForgue has some reservations regarding Reich's work and therefore Staub's; he also questions whether one analyst can utilize the same technique as another without allowances for individual differences between analysts as well as between patients. Odier cites one

of his own cases in which he utilized the techniques described by Staub.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1209. Lowtzky, F. *L'opposition du surmoi à la guérison*. (The opposition of the super-ego to cure.) *Rev. franç. Psychanal.*, 1934, 7, 197-216.—Three cases in which a very severe super-ego offered resistance to therapy are reported, with descriptions of the interpretative techniques which overcame this obstacle to the cure. One case is the four-year analysis of a 30-year-old woman patient; a second case is three months' work with a 34-year-old woman patient who had previously had three years with a different analyst; the third case is that of a three-year analysis of a girl who began the treatment at the age of 13. The writer quotes Freud as of the opinion that the feeling of guilt and need for punishment often offer an insurmountable obstacle to the cure of a neurosis; he believes that in these cases he has found a technique which permits this obstacle to be overcome. This consists of a type of interpretation which stresses love as the primary feeling toward the parent, with hate developed when there was the threat of loss of love, and emphasis upon absence of need to feel guilty for hate, since it is in a sense a measure of the intensity of love.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1210. Mandolini, H. *La simulacion inconsciente*. (Unconscious simulation.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 17-18.—It is only by meticulous psychoanalytic technique that phenomena which develop at a level above that of mere organic change may be observed and comprehended. Simulation appears as a generalized form of reactivity.—*R. M. Bellows* (Ohio State).

1211. Manzer, C. W. *The effect of verbal suggestion on output and variability of muscular work*. *Psychol. Clin.*, 1934, 22, 248-256.—An experiment on the effect upon work of telling the subject his task is easy, medium, or hard, when actually it is always the same. The Smedley hand dynamometer was used for the work, and 100 subjects, 50 men and 50 women, took part. It was found that the suggestion "hard" increased the amount of work done with both men and women. The suggestions "easy" and "medium" decreased output with the men, but not with the women. Variability of output was increased by all three suggestions with both men and women.—*J. T. Metcalf* (Vermont).

1212. Nunberg, H. *Das Schuldgefühl*. (The feeling of guilt.) *Imago, Lps.*, 1934, 20, 257-269.—The feeling of guilt is often also called the need for punishment, among psychoanalysts. The two terms are not exactly equivalent. In searching for the distinction both are traced to the anal and oral stages. The feeling of guilt begins in anxiety over loss of love, while the need for punishment may express the tendency to aggression as turned upon oneself. In other words, one comes from the libido, the other from the death instinct. Since the normal ego does not tolerate a division, the feeling of guilt and the need for punishment form a synthetic compromise.—*H. D. Spoerl* (St. Johnsbury, Vt.)

1213. Redl, F. *Wir Lehrer und die Prüfungsangst*. (We teachers and the fear of examinations.) *Z. psychoanal. Pädag.*, 1933, 7, 378-400.—In his discussion the writer considers the following questions: What is our attitude toward the pupil's fear of examinations when it confronts us? What do we do to prevent it? What are its underlying causes (etiology)? How is this fear manifested (symptomatology)? From the etiological standpoint four types of examination anxiety are distinguished: (1) the normal anxiety due to inadequate preparation; (2) fear based upon the consequences of a poor performance; this may be determined by the attitude of the parents or of the teacher, or it may be related to objective reality, e.g., the effect of failure in the examination on the future career; (3) anxiety dependent on the form of the examination, whether written or oral, formal or informal, etc.; neurotic disturbances are evident here from the psychoanalytic standpoint; (4) the peculiarly pathological fear, seemingly groundless, its basic cause not easily accessible. Psychoanalytic treatment is essential here. The author indicates the inadequate symptomatology and stresses the need for more general psychoanalytic training.—*J. J. Carlson* (Aurora-on-Cayuga, N. Y.)

1214. Rhine, J. B. *Extra-sensory perception of the clairvoyant type*. *J. abnorm. soc. Psychol.*, 1934, 29, 151-171.—A brief report is made of 37,377 tests in card guessing made under conditions planned to exclude the known sensory functions from aiding in obtaining successes. The subjects were, with but few exceptions, students at Duke University. For the group, there were 1343 successes above the chance expectation. Two subjects stood out above the rest with scores about double the chance expectation. With these two, it was found that extra-sensory perception of the type displayed in the card guessing was easily interfered with by a narcotic drug, and roughly in the degree to which the drug affected the higher mental processes in general. Considerable evidence was given to show the subjects' ability voluntarily to control their responses to obtain results either above or below chance expectation.—*C. H. Johnson* (Boston Psychopathic Hospital).

1215. Schilder, P. *Zur Psychopathologie alltäglicher telepathischer Erscheinungen. Bemerkungen zu dem Aufsatz von I. Hollós*. (On the psychopathology of every-day telepathic occurrences. Remarks on I. Hollós' paper.) *Imago, Lps.*, 1934, 20, 219-224.—Although I. Hollós recently cited several hundred cases of alleged telepathic transference between patient and analyst, seeking thereby to support Freud's contention that telepathy takes place in this manner, it is impossible to credit his conclusions. Experiences of the author and cases cited by Freud and Hollós may be explained simply by coincidence. Moreover, the theory of telepathic transference is weak in that the alleged telepathy is confined to symbolic expressions of the unconscious. While it is apparent that the technique of psychoanalysis is competent to deal with such telepathic occurrences, the telepathy itself must first be proved.—*H. D. Spoerl* (St. Johnsbury, Vt.)

1216. Sears, R. R. An experimental study of the Freudian dynamism "projection." *Psychol. Bull.*, 1934, 31, 711.—Abstract.—J. F. Dashiell (North Carolina).

1217. Siemens, O. Die Technik der Beeinflussung. (The technique of influencing.) Bad Homburg v. d. H.: Siemens-Verl. Ges., 1934. Pp. 252. RM. 9.80.—R. R. Willoughby (Clark).

1218. Staub, H. Technique de la psychanalyse de la résistance et du caractère. (Technique of the psychoanalysis of resistance and of character.) *Rev. franç. Psychanal.*, 1934, 7, 282-308.—The paper presents many illustrations from cases of patients in analysis to support the views of Reich as to the necessity of analyzing resistances due to character traits of the patient at the beginning of the analysis, rather than the content of dreams and fantasy material. Also, interpretation of superficial conflicts should precede interpretation of the deeper, infantile conflicts, together with analysis of resistances to the analysis and in the transference, as another first technique.—P. Blanchard (Philadelphia Child Guidance Clinic).

1219. Sterba, E. Aus der Analyse einer Hundephobie. (From the analysis of a dog phobia.) *Z. psychoanal. Pädag.*, 1933, 7, 433-452.—The analysis of a 7½-year-old girl's phobia for dogs is presented in detail. According to Freud's classical examples, the child's fear of an important object may be transferred to an animal, chosen by the child according to his individual circumstances. The animal thus becomes a substitute for the feared person. The relationship to the animal is an ambivalent one. The patient's phobia is essentially of this pattern.—J. J. Carlson (Aurora-on-Cayuga, N. Y.).

1220. Sterba, R. Über den Oedipuskomplex beim Mädchen. (On the Oedipus complex in girls.) *Z. psychoanal. Pädag.*, 1933, 7, 334-348.—The writer defines and outlines the development of the Oedipus complex, indicating particularly the somewhat different course it follows in girls. While the Oedipus complex in boys is shattered by the castration complex, its development in girls is made possible and ushered in by the castration complex.—J. J. Carlson (Aurora-on-Cayuga, N. Y.).

1221. Sterba, R. Theorie der Angst. (Theory of anxiety.) *Z. psychoanal. Pädag.*, 1933, 7, 421-432.—The author distinguishes between purposeful fear, i.e., the preparatory, useful reaction to an actual danger; and neurotic fear, which is a reaction to danger, but not of a real sort, i.e., the actual external circumstances do not warrant the fear. This fear is rather a fear of one's own impulses or desires. The act of birth is a fearful experience for the child, and evokes his first fear reaction. The mother's care after birth is psychologically a continuation of the pre-natal security and equilibrium. The absence of the mother is seen as a threat to this equilibrium. Withdrawal of mother love signifies an experience similar to birth. The child responds to the threat of this loss with a repetition of the fearful sensations of birth, and is thus made to comply with the wishes of

the adult. This results in the repression of undesirable impulses and a consequent fear of these impulses. This fear is a sign that forbidden desires are active in the unconscious. The development of fear is the most powerful means with which the ego can combat these forbidden desires. Fear of castration is a special form related to genital stimulation. The developing super-ego continues and supplants the parental authority. In the anxiety neurosis the fear is related to unsatisfied sexual desires.—J. J. Carlson (Aurora-on-Cayuga, N. Y.).

1222. Storfer, A. J. Die Psychoanalyse in Sammelwerken und Enzyklopädien. (Psychoanalysis in handbooks and encyclopedias.) *Imago, Lpz.*, 1934, 20, 240-251.—On combing *Die Religion in Geschichte und Gegenwart* (1932) article by article for references to psychoanalysis, the author found passages showing marked hostility in articles on topics concerned with theological doctrines. In other articles dealing with collateral subjects this is not generally the case. In the former articles psychoanalysis is most often criticized for its rationalism and positivism, and the references are frequently confined to Freud. Articles on dreams, totemism, and punishment contain no mention of psychoanalysis, and there is no reference to Reik in the entire work. *Lexikon der Pädagogik der Gegenwart* (1932), a Catholic publication, and *Pädagogisches Lexikon* (1931), a Protestant handbook, show "scarcely any difference between the attitude of doctrinal teachers of the two communions toward psychoanalysis." There is some slight acceptance by some Protestant ministers in connection with their present lively interest in psychotherapy.—H. D. Spoerl (St. Johnsbury, Vt.).

1223. Velikovsky, I. Kann eine neuerlernte Sprache zur Sprache des Unbewussten werden? (Can a second language become the language of the unconscious?) *Imago, Lpz.*, 1934, 20, 234-239.—"Plays on words in dreams by people who think in Hebrew."—H. D. Spoerl (St. Johnsbury, Vt.).

1224. Williams, J. J. Psychic phenomena of Jamaica. New York: Dial Press, 1934. Pp. 309. \$2.50.—R. R. Willoughby (Clark).

1225. Winterstein, A. Der Zornaffekt. Ein Beitrag zur Psychologie der Gefühlsvorgänge. (The emotion of anger. A contribution to the psychology of the feeling processes.) *Imago, Lpz.*, 1934, 20, 144-159.—The conclusions of psychoanalysts concerning the emotion of anger are here brought together in a single article. Freud traces anger to the birth trauma. Abraham and Bernfeld relate it to the cannibalistic stage. Other beginnings, suggested by various authors, include the Oedipus complex, anxiety, the feeling of guilt, and the anxiety neurosis.—H. D. Spoerl (St. Johnsbury, Vt.).

1226. Wittels, F. Mona Lisa und weibliche Schönheit. Eine Studie über Bisexualität. (Mona Lisa and feminine beauty. A study of bisexuality.) *Imago, Lpz.*, 1934, 20, 316-329.—The suggestion of Freud and others that the beauty of Mona Lisa expresses the androgynous nature of Leonardo is borne out by the study of feminine beauty as a psychological quality.

Moreover, feminine beauty in general has androgynous roots, as is shown by case studies where beauty participates in the production of hysterics. Such "pathological" beauty "is fed by the woman's masculine component." Psychologically, beauty consists in the will to please; but it may fail to harmonize with the personality. In one case, beauty was artificially acquired and led to appropriate disturbances; one may amplify Freud by stating that the possession of feminine beauty is a "phallic equivalent."—*H. D. Spoerl* (St. Johnsbury, Vt.)

1227. Zulliger, H. *Der Abendteurer Schundroman*. (The popular adventure story.) *Z. psychoanal. Pädag.*, 1933, 7, 357-377.—A cheap adventure story popular among adolescent school children is interpreted from the analytic viewpoint in an attempt to show why such a story is eagerly read by 13-year-olds in general and by a certain boy in particular. The novel appears to serve the following purposes: (1) It satisfies and restrains certain criminal fantasies by the indirect route of identification with the hero. (2) It is a means of establishing equilibrium between conflicting mental impulses. (3) Under certain conditions it is a means of preventing or avoiding anxiety through the reader's identification with the fearless hero. However, the reading of such novels is not recommended, as the beneficial results mentioned may be obtained from writings of literary value.—*J. J. Carlson* (Aurora-on-Cayuga, N. Y.)

1228. Zulliger, H. *Die Angst im Formdeutversuch nach Dr. Rorschach*. (Anxiety in the form interpretation test of Dr. Rorschach.) *Z. psychoanal. Pädag.*, 1933, 7, 418-420.—The value of the Rorschach test for revealing the presence of fear or anxiety is indicated. A careful evaluation of the responses may show the nature of the fear. A more general use of this test is recommended.—*J. J. Carlson* (Aurora-on-Cayuga, N. Y.)

[See also abstracts 1014, 1119, 1280, 1283, 1284, 1289, 1497.]

NERVOUS AND MENTAL DISORDERS

1229. Backlin, E. *Sinnessjukläkaren och pressen*. (The psychiatrist and the press.) *Svenska Läkartidn.*, 1934, 31, 1193-1208.—Examples are given of the often unsatisfactory and even incorrect reports appearing in the daily press as regards the mentally diseased, asylums, and the various activities of psychiatrists. In some parts of Sweden, psychiatric and press associations have appointed joint committees to serve as clearing places of information, and to establish in all respects a closer cooperation between institutions for mentally diseased and the press.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1230. Bell, A. *Apraxia in corpus callosum lesions*. *J. Neurol. Psychopath.*, 1934, 15, 137-146.—Three new cases of lesion of the genu and middle of the corpus callosum are compared with previous reports. It is concluded that the only diagnostic symptom of callosal injury is apraxia, which may be manifested

as well in walking, tongue and swallowing movements as in arm movements.—*D. G. Marquis* (Yale).

1231. Beltrán, J. *Un caso de logoplegia*. (A case of aphasia.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 13-16.—*R. M. Bellows* (Ohio State).

1232. Boals, J. O. *Toxic psychosis and amnesia as residuals of carbon monoxide poisoning*. *U. S. Veteran's Bur. med. Bull.*, 1934, 11, 172-174.—Report of a case.—*C. M. Louttit* (Indiana).

1233. Bosch, G. *Mecanismo afectivo del delirio*. (The affective mechanism of delusion.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 2-8.—On the basis of a survey of the literature concerned with the problem of delusion it is concluded that this pathological condition evolves gradually and may manifest itself by either regressive, progressive, or intermittent erotic behavior. Its etiology may be either toxic, toxoinfectious, constitutional, or organic; and its behavior expressions may take the form of expansion, depression, or defense.—*R. M. Bellows* (Ohio State).

1234. Brown, A. W. *A quantitative study of some of the intellectual and emotional changes following encephalitis lethargica*. *Psychol. Bull.*, 1934, 31, 685-686.—Abstract.—*J. F. Dashiell* (North Carolina).

1235. Buchkremer, J. *Die Psychosen der Frau im Klimakterium auf Grund sexueller Störungen*. (Psychoses of women in the climacteric on the basis of sexual disturbances.) Bonn: Neuendorff, 1934. Pp. 31.—*R. R. Willoughby* (Clark).

1236. Byers, J. P. *The village of happiness—the research laboratory*. *Tr. Sch. Bull.*, 1934, 31, 125-132.—The events which led to the founding of the research laboratory are enumerated: 1888, Garrison moved his school to Vineland; 1897, E. R. Johnstone came as vice-principal; 1903, summer school for teachers started; 1907, Goddard's European trip; 1918, Porteus came; 1925, Doll made director. Research work and now a science of human welfare are evolving.—*E. M. Achilles* (Columbia).

1237. Darrow, C. W., & Solomon, A. P. *Galvanic skin reflex and blood pressure reactions in psychotic states*. *Arch. Neur. Psychiat.*, 1934, 32, 273-299.—Clinical data on psychotic patients were studied in relation to photographically recorded measures of resistance levels and of blood pressure and galvanic skin reflex reactions to sensory, indifferent ideational, and crucial ideational stimuli. Small changes in blood pressure and small galvanic skin reactions tend to be associated with impairment of the physiologic functions of the body and with lack of "contact with reality." The combination of small galvanic reactions to ideational stimuli with large blood pressure reactions tends to be associated with irritability and related manifestations. A relation appears to exist between a large amount of free energy (or anxiety) and low electrical skin resistance and between a small amount of free energy and high electrical skin resistance. Cautions in the interpretation of the galvanic skin reflex and blood pressure reactions in

clinical studies are pointed out.—*D. G. Marquis* (Yale).

1238. Davidson, G. M. The nature of schizophrenia. *Med. Rec., N. Y.*, 1934, 140, 617-620.—The author discusses briefly the trends in belief of the organic and psychogenic schools of psychiatry as regards schizophrenia, and concludes that all the evidence indicates only that there are no psychiatric entities, but only clinical syndromes. In schizophrenia, the most marked feature is dissociation. A discussion of the memory unit and nervous activity follows, in which memory is elaborated as both a sensory and a motor act with perceptual and affective components. Perception is then elaborated as a fundamental element in the memory process and its relationship with affectivity is discussed. The element of recall is discussed in relation to affectivity and the influence of affect upon the motor aspects of memory. Next is discussed recognition, which implies a knowledge of the use of an object. This results in an organization of movement and perception which suggests that affectivity is the point of departure in the whole structure of memory and habit. Biologically, affect is subject to the same laws of integration as is the nervous system. Primarily this integration is not neurological, but physiochemical, and is probably a property of the colloids of the bodily protoplasm.—*M. H. Erickson* (Eloise Hospital).

1239. Davidson, G. M. The nature of schizophrenia. *Med. Rec., N. Y.*, 1934, 140, 660-662.—The author concludes his article, begun in the previous issue, by discussing the capillary theory of the cause of schizophrenia. Experimental physiology and pharmacology demonstrate the significance of over- and under-distension of the capillaries, and normal physiological processes such as menstruation demonstrate the psychic effects of altered capillary blood distribution. He suggests that altered cerebral capillary circulation may account for changes in cell metabolism and colloidal states of the protoplasm which might result in the symptomatology of mental diseases. Delusions, hallucinations, dreams, and paresthesias are then briefly discussed in relation to their possible genesis from disturbances of neuro-humoral integration. He concludes that "schizophrenia is not a constitutional disease or a psychogenic reaction, but a disorder of the total personality resulting in dissociation of functions" and that "schizophrenic manifestations are biochemical in their source."—*M. H. Erickson* (Eloise Hospital).

1240. Dearborn, G. V. N. The criterion of psychosis. *J. abnorm. soc. Psychol.*, 1934, 29, 121-131.—An indispensable factor or aspect of every true psychosis is mental deterioration. It has been unduly neglected by theoretical psychiatry in diagnosis, although it has been given at least a modicum of its real psychiatric value by the legal profession, by jurists, and by rating boards. The use of intellectual deterioration as the deciding criterion would make the diagnosis more certain because it can be determined by an "instrument of relative precision." No psychosis exists without its intellectual sag. Some of

the ways in which this is shown are lessening of the power of memory and of recall, derangement of conceptual association (giving rise to a tendency to avoid concrete thought), lessening of personal purposiveness, impairment of judgment, and terminal dementia to almost the vegetative status.—*C. H. Johnson* (Boston Psychopathic Hospital).

1241. Delfino, V. Algo sobre organizacion psiquiatrica e higiene mental. (The organization for psychiatry and mental hygiene.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 39-40.—An estimate of the great social value of the scientific treatment of mental deficiency.—*R. M. Bellows* (Ohio State).

1242. Devine, H. Recent advances in psychiatry. (2nd ed.) Philadelphia: Blakiston's, 1933. Pp. 364. \$4.00.—This survey of psychiatry involves 25 chapters classified under the following six headings: introduction; predisposition in mental disease; toxic, infective, and somatic factors in the causation of the psychoses; the effects of somatic diseases in psychotic subjects; physiological behavior in the psychoses; biopsychic types; and psychology and the psychoses. Under the latter heading are included psychogenesis in the psychoses, the psychopathic "unconscious," the morbid mind, and psychotherapy.—*W. S. Hunter* (Clark).

1243. Diethelm, O. The nosological position of panic reactions. *Amer. J. Psychiat.*, 1934, 13, 1295-1316.—"Panic reactions—i.e., maximal fear states which result from prolonged tension and insecurity, occur in certain constitutional make-ups as a reaction to specific life situations. Panics develop as a climax of tension depression; or they may form an important and prolonged phase in depressions with uneasiness and anxiety. I distinguish these two groups of leading panics from mere incidental panics, which may occur in any psychosis or psychoneurosis." The literature is discussed showing the development of the concept of panic in psychiatry. The relation between paranoid and disorganizing panics and paranoic and schizophrenic reactions is discussed.—*N. Goldman* (Boston Psychopathic Hospital).

1244. Erickson, M. H. The concomitance of organic and psychologic changes during marked improvement in schizophrenia. *Amer. J. Psychiat.*, 1934, 13, 1349-1367.—"Detailed psychiatric, psychologic and physiologic studies were made for a period of seven months on a patient suffering from schizophrenia, catatonic reaction type. Three distinct psychiatric states—namely, stupor, recovery from the stupor and a condition of apparent recovery from the psychosis—were found, for each of which a physiological cross-sectional study was made. Coincidental with the changes in the psychiatric and psychological spheres there have been corresponding or opposite fluctuations and variations in the organic sphere. Also, in some instances, an apparent independence has been indicated by physiologic constancy." Further study along similar lines is necessary to answer the question of functional interdependence.—*N. Goldman* (Boston Psychopathic Hospital).

1245. Ewen, J. H. A handbook of psychiatry. Baltimore: Wm. Wood, 1934. Pp. 267. \$4.75.—A

presentation of the important principles of psychiatry in synoptical form, especially intended for those preparing for examinations in psychiatry. There are sections on the psychoses, psychoneuroses, mental deficiency and the legal relations of mental disorder. The appendices contain various of the official classifications. There are a glossary and an index.—*D. Shakow* (Worcester State Hospital).

1246. Fetterman, J., & Barnes, M. R. Serial study of the intelligence of patients with epilepsy. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 797-801.—The average Stanford-Binet IQ of 105 chronic epileptics was 74. There was no direct relation between the intelligence and the type, severity, or duration of the disease. 46 patients were retested after intervals of one to two years and showed no significant deterioration.—*D. G. Marquis* (Yale).

1247. Feuchtersleben, E. v. Hygiene of the mind. New York: Macmillan, 1933. Pp. 150. \$1.25.—This is a translation of an essay written by an Austrian physician in 1838. Compounded of ideas which in one guise or another have filtered down to us in certain phases of the writings of the Christian Scientists, the Emmanuel movement, and more recent psychiatric studies, it is an interesting evidence that mental hygiene is no new thing. Rather, as the translator says, "it has come to be essentially a wisdom of the ages."—(Courtesy *Person. J.*)

1248. Gotor, P. El tempo personal en psicopatología. (The personal tempo in psychopathology.) *Arch. Neurol., 1934*, 14, 363-404.—Investigating the tapping and counting rate and the choice of an "agreeable" metronome rate by 53 normal compared to 223 psychotic subjects of 11 classifications, the most numerous of which were schizophrenics and epileptics, it was found that a large variability is characteristic of pathological subjects. In epileptics the tapping rate is greater than in the normal group.—*R. M. Bellows* (Ohio State).

1249. Gotten, N., & Patten, C. E. The delusions of spiritism. Psychiatric reactions. *Amer. J. Psychiat.*, 1934, 13, 1331-1347.—A brief review of spiritism and kindred cults followed by the report of a case of a woman "who has paranoid delusions and hallucinations based upon spiritualistic ideas acquired through her experiences in spiritualism and from the teachings of her father."—*N. Goldman* (Boston Psychopathic Hospital).

1250. Henry, G. W., & Galbraith, H. M. Constitutional factors in homosexuality. *Amer. J. Psychiat.*, 1934, 13, 1249-1270.—Physical examinations of a group of patients in the Bloomingdale Hospital, grouped according to the predominance of heterosexual or homosexual tendencies, indicate that homosexuals "show constitutional deviations from the general average which are considerably greater than those of the heterosexually adjusted." Various items such as skeletal structure, carrying angle of arm, fat distribution, musculature, hair, voice, genitalia, etc., are considered by the authors.—*N. Goldman* (Boston Psychopathic Hospital).

1251. Hermann, A. Ueber einige psychische Symptome des Alkoholdeliriums. (Some psychic symptoms of alcoholic delirium.) Basel: Philograph. Verl., 1934. Pp. 14.—*R. R. Willoughby* (Clark).

1252. Hinsie, L. E. Syllabus of psychiatry. A guide to general orientation. Utica, N. Y.: State Hospitals Press, 1933. Pp. 348. \$2.50.—A syllabus intended especially for those who see psychiatry as a part of general medicine. It attempts to present in a brief manner many of the important psychiatric concepts. The chapter on "Constitutional Concepts" discusses, among others, Stockard's, Draper's, Kretschmer's and various other views on genetic factors. That on "Psychical Concepts" takes up the ethnological views of Rivers, Levy-Bruhl and Storch, and the formulations of Jung, Freud, Meyer, Hoch and others. The chapter on "Psychophysical Concepts" presents Adler's, Kempf's and Lewis' views. Under "Sociological Considerations" are discussed such topics as the extent of psychiatric problems, the sociological significance of individual psychiatric symptoms and syndromes, and the problem of classification. The last chapter "Endogeny and Exogeny" takes up and discusses briefly central pathology, the vegetative nervous system, endocrinology, and psychogenic and somatogenic exogenous factors. Bibliography and index.—*D. Shakow* (Worcester State Hospital).

1253. Holland, J. A. The value of physiotherapy in the treatment of mental disease. *Amer. Med.*, 1933, 307-310.—Review of the pathologies associated with mental diseases. The author regards the relationship as causal and discounts theories which hold that psychological factors are basic to the development of psychoses.—*D. J. Ingle* (Mayo Foundation).

1254. Hoverson, E. T. Role of the autonomic rhythm in the acute psychoses. *Med. Rec., N. Y.*, 1934, 140, 613-617.—The author discusses briefly the diurnal, the menstrual, the seasonal and the autonomic rhythms and their influence upon bodily and, particularly, cerebral cell chemistry. In the autonomic rhythm are included the chemical and physiological changes initiated by individual cyclonic disturbances, and these are considered to be particularly related to meteorological states. Brief extracts of 25 case histories are given to illustrate the relationship between acute psychotic episodes and meteorological conditions. The author concludes that there is a close correlation between the onset of an acute psychotic episode and the meteorological state and that meteorological changes play an important part as a final factor in acute psychotic attacks.—*M. H. Erickson* (Eloise Hospital).

1255. Hunt, J. McV. Psychological loss in paresis and schizophrenia. *Psychol. Bull.*, 1934, 31, 713.—Abstract.—*J. F. Dashiell* (North Carolina).

1256. Ketterer, C. H. Cardiac neuroses. *U. S. Veteran's Bur. med. Bull.*, 1934, 11, 94-98.—A description, with suggestions for differential diagnosis, of cardiac neuroses.—*C. M. Louttit* (Indiana).

1257. Louden, M. V. Some behavior changes in a juvenile paretic. *Psychol. Clin.*, 1934, 22, 257-262.—J. T. Metcalf (Vermont).

1258. Loudet, O., & Dalke, L. Epilepsia y suicidio. (Epilepsy and suicide.) *Rev. Criminol., B. Aires*, 1934, 21, 396-403.—There are recognized three types of epilepsies—the inert, the explosive, and a mixed type. In the epileptic neurosis true suicide is most common in the inert type. In the epileptic psychosis suicide is relatively rare—here the clinical form most common in suicide is melancholia. Suicides must be carefully differentiated from accidental deaths, as these falsify the available statistics.—R. M. Bellows (Ohio State).

1259. Middleton, W. C. Is there a relation between kleptomania and female periodicity in neurotic individuals? *Psychol. Clin.*, 1934, 22, 232-247.—The author describes the case of a girl of nineteen who was frequently guilty of theft during her menstrual periods and apparently at no other time. The literature on the subject is meager, but gives some indication of a possible relation between menstruation and kleptomania. The author sent out 100 questionnaires on the subject to specialists in nervous and mental disease and received 43 replies. A majority of those who replied were somewhat favorably disposed to the idea that the bodily and mental effects of menstruation might predispose to kleptomania and other compulsive acts in the case of neurotic women.—J. T. Metcalf (Vermont).

1260. Mirolyubov, N. G., & Ugol, N. B. K voprosu o sostoyanie razdrzhitel'novo protzessa u shizofrenikov. (The problem of the state of the process of excitation in schizophrenics.) *Sovetsk. Psikhonevol.*, 1933, 3, 68-82.—The responses of schizophrenics to electric shock and the conditioning of the shock to an electric bell were tried in four female patients, 18, 22, 26, and 34 years of age. In three of the patients increases in the electric shock (as brought about by decreases of the distances between the coils of the inductorium) caused increases in the magnitudes and frequencies of the withdrawal responses only up to a certain limit, further increases producing smaller and less frequent reactions. The conditioned responses were formed after 37, 48, 67, and 67 trials, but were extremely unstable.—G. H. S. Razran (Columbia).

1261. Monat, H. A. An unusual case of hysteria with a retrocursive gait. *U. S. Veteran's Bur. med. Bull.*, 1934, 11, 167-168.—C. M. Louttit (Indiana).

1262. Moss, F. A. The physical basis of delusions and hallucinations. *Psychol. Bull.*, 1934, 31, 711.—Abstract.—J. F. Dashiell (North Carolina).

1263. Munn, C. Historical survey of the literature of stupor with the report of a case of twelve years' duration with complete amnesia for ten years. *Amer. J. Psychiat.*, 1934, 13, 1271-1283.—N. Goldman (Boston Psychopathic Hospital).

1264. Norbury, F. P. The climacteric from the viewpoint of mental disorders. *Med. Rec., N. Y.*, 1934, 140, 605-609.—Mental reactions depend largely

upon reactions at physiological, physio-chemical, and socio-psychological levels. Modern research discloses femininity to be the product of all the endocrine glands and not of the ovaries alone, but so far endocrine therapy is highly inadequate. Studies of suicide in women reveal two periods of increased frequency, early adolescence and the involutional period. The menopause is marked frequently by severe metabolic disturbances concomitant with psychic disturbances. Both are benefited by thyroid therapy. Physio-chemical changes at menstrual periods account for slight transitory mental disturbances, and often are prognostic of the future nature of the menopause. The change in the outlook on life occasioned by the menopause often leads to the disclosure of hitherto concealed or compensated anti-social traits. Psychotherapy is hopeful, but requires care and time. There is no proper psychiatric classification of climacteric mental disorders. Prodromes are sleep disturbances, vivid dreams, morning depressions, temper alterations, with a progressive loss of insight. 18% of patients show depression, 19% irritability, and 11% combined depression and irritability. Prognosis is good in about 80%, but recovery is slow, with the average case under intensive treatment requiring care for about 18 months. Hospitalization is imperative for adequate treatment.—M. H. Erickson (Eloise Hospital).

1265. Norbury, F. P. The climacteric period from the viewpoint of mental disorders. *Med. Rec., N. Y.*, 1934, 140, 657-662.—The author concludes an article begun in the previous issue by discussing the climacteric in men, commenting on the lack of information available in the literature. The mental attitude in men is often more marked with greater, though more vague, fears and forebodings, more confusion, and greater guilt reactions. Sexual ideas and disturbances in sexual behavior often suggest loss of potency. Personality plays a marked role in determining the nature of the mental disturbance. The climacteric in men develops later than in women and is of more diffused evolution, its organic symptomatology is more attenuated, and its psychological characteristics differ from those of the female climacteric because of the fundamental difference in the significance of the sexual life for the sexes. Two case histories of women are then presented in some detail.—M. H. Erickson (Eloise Hospital).

1266. Pescor, M. J. Problem neuroses and their management in a correctional institution. *Publ. Hlth Rep., Wash.*, 1934, 49, 1370-1371.—C. M. Louttit (Indiana).

1267. Pierce, A. H. The therapeutic value of music for psychotic patients. *U. S. Veteran's Bur. med. Bull.*, 1934, 11, 142-147.—Music was found to be a useful therapeutic measure, both when the patients are actively engaged in performance and when they are listeners.—C. M. Louttit (Indiana).

1268. Pollock, H. M. The relation of occupational therapy to medicine. *Occup. Ther.*, 1934, 13, 361-366.—Occupational therapy is never dangerous treatment and seldom does any harm. One of its values lies in

the fact that the course of treatment can be easily observed. The author suggests systematic instruction in medical schools. Prescription must be distinctly individual and should differ, for example, for orthopedic and tuberculous cases.—*H. E. Burt* (Ohio State).

1269. Prout, C. T., & Ziegler, L. H. A study in psychobiology. *Amer. J. Psychiat.*, 1934, 13, 1227-1236.—A discussion of the psychobiologic approach to life as it is presented to first-year medical students of the Albany Medical College. Autobiographical data obtained from the students afford "a useful approach to the psychiatric training most helpful to the general practice of medicine."—*N. Goldman* (Boston Psychopathic Hospital).

1270. Richter, W. G. The beneficial effects of music for the mentally ill. *U. S. Veteran's Bur. med. Bull.*, 1934, 11, 148-150.—Report of 3 cases showing the beneficial effect on psychotic patients of participation in the hospital band.—*C. M. Louttit* (Indiana).

1271. Schilder, P. Self-consciousness and optic imagination in a case of depression. *Psychoanal. Rev.*, 1934, 21, 316-328.—This article deals with the case of a medical student who has a personality change and who cannot remember the anatomical parts, particularly those of the pelvis. There are three components in his case (one of manic-depressive psychosis), viz., narcissism, optic libido, and sado-masochistic tendencies. The conclusions are: (1) The knowledge of one's own psychic acts belongs to the characteristics of one's own psychic life. (2) This knowledge is the expression of the social character of human existence. (3) The differentiation between ego and super-ego is the basis for socialized acts. (4) The body image and the knowledge of one's own psychic acts are closely related to each other. Optic interests and curiosity are basic for both of them. (5) Narcissism, at least in special cases, is not due to the disappearance of object relations, but to an over-socialization, with levelling of the object relations. (6) The relation between super-ego and persons outside retains a special flexibility in cases of this kind. (7) Consciousness is a social function reflected in the super-ego. (8) Over-consciousness (self-consciousness is the result of over-socialization, with levelling of the object relations.—*L. S. Selling* (Eloise Hospital).

1272. Schou, H. I. Funktionelle neuroser. (Functional neuroses.) *Ugeskr. Laeg.*, 1934, 96, 1029-1036.—The writer treats in detail and concludes concerning neurasthenia and hysteria. It is his conviction that neurasthenia *sui generis* does not exist; just as there is no genuine epilepsy, there is no genuine neurasthenia. These conclusions are reached through thorough psychiatric, neurological and medical examinations of 523 patients. The most frequent organic diseases underlying neurasthenic symptoms are said to be pluriglandular insufficiency, chronic encephalitis, pernicious anemia, and simple achylitic anemia. Among the psychical traumas, especially relevant to hysteria but usually not sufficiently stressed, are bodily defects. The author thus supports Adler's contention that a feeling of inferiority can give

rise to hysteria. Adler holds that this is brought about psychically through unconscious complexes. Schou argues that it might be explained from a natural-science point of view in terms of traumatic influences on the autonomic nervous system and the mid-brain. Psychical traumas, affecting these people year after year, ultimately give rise to the organic cerebral disposition which is the basis for hysteria. It is further pointed out that imbecility, or psycho-infantilism, has been neglected in the diagnostic considerations. "According to our experience, it is very difficult to cure these cases of hysteria, because it is impossible to bring into effect those concepts and attitudes which will remove their feeling of insufficiency. Experience tells us that hysteric patients with IQ's below 60-75 are incurable." Psychoanalysis and hypnosis are not highly esteemed by the writer as therapeutic methods, but occupational therapy is recommended.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1273. Shipley, W. C. Stanford-Binet test scattering as related to IQ in clinical cases. *Psychol. Bull.*, 1934, 31, 684-685.—Abstract.—*J. F. Dashiell* (North Carolina).

1274. Stoll, H. F. Chronic invalidism with marked personality changes due to myxedema. *Ann. intern. Med.*, 1932, 6, 806-814.—The personality of myxedematous patients is characterized by irritability, untruthfulness, suspicion, delusions, retarded cerebration, inability to concentrate, introversion, and failing memory. Speech and motility are slow. Thyroid treatment reduces these personality deviations. Six case studies included.—*D. J. Ingle* (Mayo Foundation).

1275. Street, R. F. The Gestalt completion test and mental disorder. *J. abnorm. soc. Psychol.*, 1934, 29, 141-142.—This study shows definite inferiority of functional mental cases and marked inferiority of organic cases in the capacity to succeed on the Gestalt completion test. The scores give no indication, however, of the exact nature of the deficiency. There seems to be a tendency for younger children to juxtapose elements of the picture rather than to attempt to synthesize them into a whole. If it were found that the inferior scores of the mentally ill were the result of a greater tendency to juxtaposition than to synthesis it would suggest regression rather than mental clouding.—*C. H. Johnson* (Boston Psychopathic Hospital).

1276. Wechsler, D. The concept of mental deficiency in theory and practice. *Psychol. Bull.*, 1934, 31, 684.—Abstract.—*J. F. Dashiell* (North Carolina).

1277. Wigert, V. Om "psykisk hygien." (On mental hygiene.) *Ugeskr. Laeg.*, 1934, 96, 1061-1068.—The necessity for methods and possibilities of mental hygiene, given as a lecture before the Medical Society in Copenhagen.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1278. Winston, E. The assumed increase of mental disease. *Amer. J. Sociol.*, 1935, 40, 427-439.—The assumption has been widespread that the rate of

mental disease is constantly increasing. This has been cited as an illustration of man's lack of adjustment to a complex culture. Data for various sections and states of the United States indicate that an upward trend is not always found. While the data are limited, there is sufficient evidence to lead one to question the assumption of an increasing rate of mental disease throughout the United States. When the investigation is carried into the foreign countries for which data are available, it is found that there is no general upward trend in the annual admissions for mental disease in the various countries considered. Rather, subject to differing conditions, there is great diversity in actual rates and in trends. On the basis of these data, it appears that the theory of an increasing rate of mental disease is at least open to question.—(Courtesy *Amer. J. Sociol.*)

1279. Yorshis, M., & Gottlieb, J. The genetic relationship of blood groups and schizophrenia. *Amer. J. Psychiat.*, 1934, 13, 1285-1293.—"The purpose of this investigation is to ascertain whether or not there is any possible correlation between the inheritance of blood groups and schizophrenia." In this preliminary report data are presented from 21 "intact families" of schizophrenic patients. The following conclusions are indicated: "(a) There was no atypical distribution of blood groups, save a problematic increase in group III for the schizophrenics. (b) The distribution of blood groups according to sex showed no significant differences. (c) There was a trend indicating a higher incidence of schizophrenic sons following the blood group of the father and of schizophrenic daughters following the blood group of the mother than in normal sons and daughters of the same families." Bibliography.—*N. Goldman* (Boston Psychopathic Hospital).

[See also abstracts 1012, 1019, 1190, 1191, 1192, 1286, 1318, 1323, 1351, 1419, 1420.]

PERSONALITY AND CHARACTER

1280. Bergler, E. Zur Problematik des "oralen" Pessimisten. Demonstriert an Christian Dietrich Grabbe. (On the question of the "oral" pessimist. Demonstrated from Christian Dietrich Grabbe.) *Imago, Lpz.*, 1934, 20, 330-376.—The dramatic poet Grabbe is viewed as the type of the "oral" pessimist, and this peculiarity is revealed in his life and writings. The anxiety that is central to his fixation at the oral stage is the "fear of being devoured." "Oral" pessimism does not harmonize with schizoid, cycloid, or hysteriform conditions. Grabbe was in general a neurotic genius. His attitude was chiefly that of expecting disappointment from life, and this involved an element of pleasure. "The technique of the pessimist" is "putting others in the wrong." Following Freud's constitutional theory of endowment, Grabbe's talent as such may be taken for granted rather than regarded as an effect of oral fixation.—*H. D. Spoerl* (St. Johnsbury, Vt.)

1281. Bernreuter, R. G. Multiple factor analysis of "impure" personality trait test items. *Psychol.*

Bull., 1934, 31, 703-704.—Abstract.—*J. F. Dashiell* (North Carolina).

1282. Campbell, C. M. Human personality and the environment. New York: Macmillan, 1934. Pp. 252. \$3.00.—This book is the development of a series of lectures delivered to a lay audience at Lowell Institute, Boston, in 1933. Chapter 1, discussing the relation of the personality to the physio-chemical environment, elaborates personality as objective behavior and inner experiences of the organism and discusses the effect of such influences as anoxemia, drugs, climatic changes, etc. The next chapter, dealing with the component structures of the organism, elaborates the role of endocrine glands, emotions, special senses, etc., and the influence of the personality upon the soma. Chapter 3 deals with the development of the personality, the forces affecting it, and the persistence in the adult of early attitudes. The next chapter, on the dynamic systems and their integration, elaborates the various types of personality, analyzes selected traits, and discusses the role of various mechanisms. Chapter 5, dealing with some of the tasks confronting the personality, is elaborated by citing examples from the lives of various geniuses. The last chapter elaborates the ways in which the personality deals with its need for self-expression and with the total situation, and is illustrated with examples from the lives of historical figures. An index of authors and subject matter is given.—*M. H. Erickson* (Eloise Hospital).

1283. Fenichel, O. Zur Psychologie der Langeweile. (On the psychology of boredom.) *Imago, Lpz.*, 1934, 20, 270-281.—Probably numerous different attitudes come under the head of boredom, which has been studied but little by psychoanalysis. The state of boredom is bound up with monotonous, rhythmic stimuli, which may afford a pleasant affect unless interrupted. Such interruption corresponds to the loss, by suppression, of the goal of an impulse. The tendency to action persists, but cannot result in expression for want of an opportunity. Boredom depends finally upon the physiological condition of libido under constraint.—*H. D. Spoerl* (St. Johnsbury, Vt.)

1284. Fisher, V. E. A new technique in the experimental study of moods; and some results. *Psychol. Bull.*, 1934, 31, 712.—Abstract.—*J. F. Dashiell* (North Carolina).

1285. Flemming, E. G. A factor analysis of personality. *Psychol. Bull.*, 1934, 31, 704.—Abstract.—*J. F. Dashiell* (North Carolina).

1286. Furu, T. On the behavioristic moment of Dr. Morita's theory of nervous temperament. *Jap. J. appl. Psychol.*, 1934, 2, 370-381.—Morita's theory of nervousness, though it is seriously attacked by a Freudian analyst (Otsuki), is in accord with the fundamental conception of Watson's behaviorism as shown when he observed emotional responses in newborn infants. Morita's treatment of his "hypochondriacal basic tone" is in reality nothing but Watson's reconditioning. Morita advocates mental antagonism, contradiction of thought, objectivity of con-

sciousness and psychical interaction; also therapeutically his theory has an advantage over the Freudian.—*R. Kuroda* (Keijo).

1287. Hartmann, G. W. **Personality traits associated with variations in happiness.** *J. abnorm. soc. Psychol.*, 1934, 29, 202-212.—With the possible exception of the finding that unhappy people are mildly inclined to be neurotic, most of the definite contributions of this study are negative in character. The low correlation between happiness self-estimates and the ratings of others is a fundamental limitation, which in conjunction with the inevitable factor of attenuation, is probably responsible for most of the negligible *r*'s reported. A college population may be a poor group upon which to base generalized conclusions concerning humanity. Most of the subjects considered themselves happier than the average, which may be literally true in view of the relatively sheltered existence of the American undergraduate. The absence of any relation between estimated happiness and vocational interest may hold only for adolescents not yet economically self-sustaining.—*C. H. Johnson* (Boston Psychopathic Hospital).

1288. Koga, Y., & Kato, H. **A study of character and temperament.** *Jap. J. appl. Psychol.*, 1934, 2, 382-417.—Abstract forms of questions are not adequate to ascertain the genuine character of feeling, emotion or mood; Furukawa's correlation between temperament and blood types was not proved; an urgent need of a most concrete and complete classification of temperament is stressed.—*R. Kuroda* (Keijo).

1289. Mette, A. **Zur Psychologie des Dionysischen.** (On the psychology of the Dionysian.) *Imago, Lps.*, 1934, 20, 191-218.—Nietzsche's characterization of Apollonian and Dionysian artists has general correspondence in the scheme of psychoanalysis. The Apollonian type, which finds expression in the perfecting of objective forms, corresponds in all important respects to the anal character. It is illustrated by the novelist Stifter. The Dionysian type, in which Nietzsche emphasized the expression of a deeplying community of feeling, corresponds closely to the oral character. But the erotism of the types is not simple. In the Apollonian the masculine element is dominant; in the Dionysian there is an identification of masculine and feminine elements. The Dionysian artist is illustrated by the poet Kurt Liebmann. Nietzsche himself tended toward Apollonian expression, but occasionally achieved a synthesis, as many other artists have done.—*H. D. Spoerl* (St. Johnsbury, Vt.).

1290. Okabe, Y. **Character tests applied to factory workers.** *Jap. J. appl. Psychol.*, 1934, 2, 339-348.—Three character types are distinguished: (1) those who are diligent but taciturn, (2) those who are languid and unskilful, yet very talkative, and (3) those who are diligent, skilful and captious. These types may, however, be regarded as constituted from combinations of some of the following fundamental traits: captious and talkative (A), the negative of A (a), unctuous but untrustworthy (A'), and technical

skill (B); thus (1) is expressed as aB, (2) as A'B, and (3) as AB. The relative predominance of each of these traits was indicated with marks (one to ten full marks) and an applicant's character may be expressed by a formula such as A8A'9a6B8.—*R. Kuroda* (Keijo).

1291. Patrick, J. R., & Sims, V. M. **Personality differences between negro and white college students, north and south.** *J. abnorm. soc. Psychol.*, 1934, 29, 181-201.—Literature shows that some investigators find race differences on some personality traits, while others find differences on other traits. None of the studies show as definite consistent differences in personality between negroes and whites as have been found in intelligence. This study reports racial and sectional differences in intelligence, as have been found by other investigators. Race differences between negroes and whites were found on only one trait, namely introversion. The white males tend more towards introversion than do the negro males. Negro males tend to be more self-sufficient and more dominant than are white males. The white women scored higher on the neurotic scale than the negro women; yet the latter indicated more dominance than the former. The whites showed more variability than the negroes.—*C. H. Johnson* (Boston Psychopathic Hospital).

1292. Schramek, R. **Franz Liszt.** (Franz Liszt.) *Arch. ges. Psychol.*, 1934, 92, 45-84.—This is a biographical sketch of the life of Liszt with special reference to his religious urges and his musical differences, and their conflict throughout life. Emphasis is placed upon the parallelism that existed between the four epochs of his youth and those of his adult years. The adolescent period of his life was anticipatory of his maturer development. A bibliography accompanies the article.—*A. B. Herrig* (Michigan Central State Teachers College).

1293. Siemens, O. **Die Gesetze des Erfolgs, Persönlichkeit im Werden.** (The laws of success; personality and evolution.) *Bad Homburg v. d. H.: Siemens-Verl. Ges.*, 1934. Pp. 303. RM. 9.80.—*R. R. Willoughby* (Clark).

1294. Stevens, S. N., & Wonderlic, E. F. **The A-S reaction test. A study of Beckman's revision.** *Person. J.*, 1934, 13, 222-224.—From analysis of the scores of 201 male applicants for positions and 141 branch-office managers in the Household Finance Corporation, Chicago, the authors conclude that "before the revised form of the Allport ascendance-submission test is adopted as a diagnostic part of employment procedure, it should be subjected to further experimentation."—*R. H. Brown* (Clark).

1295. Strong, E. K. **Interests of men and women.** *Psychol. Bull.*, 1934, 31, 704-705.—Abstract.—*J. F. Dashiell* (North Carolina).

1296. Wrightstone, J. W. **Measuring personal and social adjustments.** *Teach. Coll. Rec.*, 1934, 36, 224-228.—The average score on student questionnaire and character sketches of pupils of the older type of schools did not differ significantly from those

of the newer type of schools (guidance and adjustment service). The self-marking test does give a significant difference.—*J. M. Stalnaker* (Chicago).

1297. Zubin, J. The determination of response patterns in personality inventories. *Psychol. Bull.*, 1934, 31, 713.—Abstract.—*J. F. Dashiell* (North Carolina).

[See also abstracts 1189, 1218, 1228, 1274, 1333, 1343, 1377, 1380, 1381, 1461, 1512.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

1298. Adler, H., Cahn, F., & Stuart, J. The incidence of delinquency in Berkeley, 1928-1932. Berkeley, Calif.: Univ. California Press, 1934. Pp. x + 102. \$2.00.—A study of a large number of juvenile delinquents in Berkeley, California, with special reference to age, race, and home conditions. With regard to the age factor, "the greatest percentage of the total number was found in the 16-year age group." In the racial comparisons the Mexicans had the highest percentage. "There were no significant features observable in the structures, the habitations, the traffic, the occupations, or the social life of the inhabitants that could be connected in any way with the delinquent statistics."—*V. Jones* (Clark).

1299. Ataka, K. La psychologie de Zen. (Psychology of Zen.) *Jap. J. exp. Psychol.*, 1934, 1, 67-74.—Zen aims to break all the restraints of human life with the comprehension of the essential principle. The study contains three questions: (1) What is the essential principle? (2) With what psychological process do we comprehend it? and (3) What is the mental state after we have comprehended it? The author thinks that the comprehension of the essential principle means the realization of pure subjectivity.—*R. Kuroda* (Keijo).

1300. Barr, E. D. A psychological analysis of fashion motivation. *Arch. Psychol.*, N. Y., 1934, No. 171. Pp. 100.—Does the individual, through his choice of clothes, express himself as an integral conforming member of the social group? To what extent do clothes serve as a means of emphasizing individual distinction or difference? The subjects were 173 students interested in dressmaking and 116 in institutional management studies, called a non-wage-earning group, and 35 counsellors and 30 Brooklyn College students, called a wage-earning group. All were between 17 and 50 years of age. The main source of information for guiding the analysis and for gauging the relative importance of the varied motivating factors was a questionnaire. 44 questions were presented and are given in the monograph. The really fundamental attitudes in the choice of clothes—those associated with desire to conform, desire for comfort, desire for economy, etc.—occur so widely as to be "universal." Most differences in attitudes involve differences in the intensity of the desire to be in fashion and in the more specific practical expression of the fundamental attitudes. Desire to express personality is widely diffused. An index of the

importance which the choice of a dress assumes is the amount of time and effort expended in window-shopping or looking, rather than in advertisements or recommendations. Advertising is more potent as a source of fashion ideas than as a direct stimulus to buying. A bibliography is appended.—*E. M. Achilles* (Columbia).

1301. Betts, E. A. A physiological approach to reading disabilities. *Educ. Res. Bull.*, 1934, 13, 135-140; 163-174.—After saying that attempts to study reading problems entirely by educational-research methods have proved fruitless, the author presents a discussion of the physiological background of reading disabilities.—(Courtesy *J. educ. Res.*)

1302. Blachowski, S. Klamstwo. (Lies.) *Chowanna*, 1933, 4, 155-188.—In this work the author develops a theory of lies, based on the division into (a) the motives and (b) the forms of lies. Lies arise out of (A) the desire to obtain something of value (1) for oneself, (2) for someone else; (B) the desire (1) to avoid the loss of something possessing value of its own, (2) to prevent someone else from losing something of value; or (C) the desire to deprive someone else of something of value. Every lie may be reduced to one of two forms: (a) defence against unpleasantness, (b) emphasis of one's own individuality.—*S. Blachowski* (Poznań).

1303. Bogardus, E. S. Leaders and leadership. New York: Appleton-Century, 1934. Pp. 325. \$3.00.—A discussion of the principles underlying the development of leadership. Through a study of many noted leaders in various fields, the author gives a set of principles which seem to be necessary to leadership; this is based upon an examination of heredity, a study of the influences of social stimuli, and a consideration of personality traits. In his discussion of the origins and principles of leadership, he considers various theories, illustrating his points by actual incidents taken from the lives of different leaders. An appendix is given, including lists of world leaders, their achievements, and a leadership history guide.—*M. Gifford* (Worcester State Hospital).

1304. Brotz, R. H. Grosses Lehrbuch der Graphologie. (A complete textbook of graphology.) (Vols. 2 & 3.) Zeulenroda: Sporn, 1934. Pp. 216, 184. RM. 6.00.—*R. R. Willoughby* (Clark).

1305. Calabresi, R. Contributi sperimentali allo studio del senso estetico. (Experimental contributions to the study of the esthetic sense.) *Riv. Psicol.*, 1934, 30, 141-191.—Experiments were carried out in order to measure esthetic experiences among several hundred girls in vocational and academic schools, ages 11 to 20. The major problems studied were preferences for symmetry and for natural or stylized reproductions at different age levels, and the possibility of classifying pupils according to their degree of esthetic sensitivity. Spontaneous comments concerning the motives for various choices were taken down and classified. The results indicated in particular that the esthetic sense does not develop gradually with age, but seems rather to emerge

coincidentally with the onset of puberty.—*T. M. Abel* (Sarah Lawrence).

1306. **Childs, H. L.** *A reference guide to the study of public opinion.* Princeton: Princeton Univ. Press, 1934. Pp. 105.—The body of information relating to the approach to and the techniques of influencing public opinion has now reached such proportions, says Edward L. Bernays in his introduction, "that it seems desirable to attempt a tentative classification of it." Though essentially a bibliography, the book is organized and correlated in such a way that the major trends of the idea-content of the subject are clearly evident to the informed reader.—(Courtesy *Person. J.*)

1307. **Clemmesen, C.** *Om mentaliteten hos københavnske småforbrydere.* (The mentality of minor criminals in Copenhagen.) *Ugeskr. Læg.*, 1934, 96, 1100-1103.—On the basis of a thorough investigation, including social history and physical and mental make-up, Danish criminal law allows for "conditioned sentences," i.e., probation for a 2-5 year period for minor crimes for first offenders. The task of supervision and guidance during probation is undertaken by a private association which works in close cooperation with the legal authorities. The present article summarizes the results of the psychiatric examinations of 140 offenders, 110 males and 30 females, with an age range of 15 to 60 years. 65% of the cases were less than 25 years old. Theft was the main crime in two-thirds of the cases. The data may conveniently be summarized as follows: Of the total number of cases, 75 (53%) were found to be mentally normal; 22 received no sentence from the court, 49 received a "conditioned sentence," and 4 were sentenced. 18 cases (13%) were mentally retarded; 2 received no court sentence, 15 received "conditioned sentence," and 1 was sentenced. 7 cases (5%) were feeble-minded, 5 receiving no court sentence, 2 "conditioned sentence." 30 cases (21%) were found to have "psychopathic constitutions," 8 receiving no sentence by the court, 17 being "conditioned" and 5 sentenced. 4 cases (3%) were said to be in a "psychotic state," 3 receiving no sentence, and 1 receiving a "conditioned sentence." 6 cases (4%) were classified as "psychotic depressives," 4 receiving no sentence, and 2 "conditioned sentences."—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1308. **Cuff, N. B.** *The vectors of socio-economic status.* *Peabody J. Educ.*, 1934, 12, 114-117.—From 758 college students the 189 highest and the 189 lowest scorers on the Thurstone intelligence percentiles, and also the same number of the highest and of the lowest college-achievement scorers, were rated on the Sims socio-economic score cards. Results show that the score-card items which predict intelligence scores best are, in order: whether the mother ever went to high school; membership of student in organizations or clubs which require the payment of dues; whether father went to high school; etc. The father's occupation, often ranked as first, ranks 14.5; whether he attended college ranks 10.5. Those items predicting college grades best were, in order of importance, frequency of having dental work done; family ownership of an automobile that is not a truck; and, of

equal importance, number of books in home, paying dues to organizations or clubs, and father's occupation. Possession of a telephone in home ranked 17th in the list of 23 items in the prediction of scholarship. The investigation was made in a Kentucky college.—*J. Peterson* (Peabody).

1309. **Cvijić, J.** *Psihicke osobine Južnih Slovena.* (Mental traits of South Slavs.) Belgrade: 1931. Pp. 254.—This is the Serbian edition of Part II of the book *Péninsule Balkanique* (Paris, 1918), now revised and supplemented with posthumous manuscripts. The method is direct observation during the author's travels every summer for about 30 years. This has been supplemented by the systematic study of migrations and settlements, and the study of differences between peoples of the same stock but living in different geographical and economic conditions. Historical and folk-lore data, and products of poetry and art in general, are also used. All Slavs of the Balkan Peninsula are divided into four main types, each type being subdivided into many varieties. Boundaries of the different types and varieties are given in a geographical map. The types are: (1) Dinaric, (2) Central, (3) East Balkanic, and (4) Pannonian. Mental traits of the Dinaric type are: mutual sympathy and support, great respect for ancestors and celebration of family patron (every family has a saint as patron), developed national consciousness and great interest for historical past, developed military virtues and frequent appearance of military talents. The people are very energetic and violent, but with some of them periods of great activity are followed by periods of absolute passivity. Some are frequently melancholic. They are irrational, indulging in intensive sentimentality, have rich and vivid imagination with poetic feeling, and have produced the best Slavonic folk poetry. Of all types they have given the greatest self-taught men in science, statesmanship, military art and poetry. One variety of this type, Shumadian, has more sense for the real world, is less epic, has more openness, sociability, cheerfulness, democratic feeling, endurance in difficulties, and more clear-headedness than other varieties of the same type. The Central type has more archaic, old Balkan mental traits. Submissive disposition and moral mimicry are its traits as an effect of the long and rough reign of the past foreign masters. This type is reserved, cautious, has self-control, is of a more lyric than epic disposition, showing however some realism even in love songs. Work ("rabota") and business are stressed always and everywhere. Preferred professions of those who undertake higher education are: medicine, pharmacy, engineering. Great adaptability to new environment is also a trait of this type. In a similar way other types and their varieties are brought out in this study. The Dinaric type has 5, the Central 5, the East Balkan 4, and the Pannonian 3 varieties. Racial and ethnic mixtures, and geographical, economical and social influences have been elaborated.—*B. P. Stevanović* (Belgrade University, Yugoslavia).

1310. **Dawid, J. W.** *Psychologia religij.* (Psychology of religion.) Warsaw: Nasza Księgarnia, 1933. Pp. 150. 5 zloty (paper).—This posthumous

work is based on introspection, supplemented by materials from autobiographies, letters, confessions, questionnaires, etc. Religious experiences should not be considered, according to the author, solely from the psychological point of view; biology and sociology have something to contribute, though by themselves they are not sufficient to explain religious phenomena.—*S. Blachowski* (Poznań).

1311. *De Asna, J. La délinquance juvénile et les tribunaux pour enfants.* (Juvenile delinquency and children's courts.) Montevideo: Palace du Livre.—This book treats especially of conditions in Spain.—*M. E. Morse* (Baltimore).

1312. *Foster, H. S. How America became belligerent: a quantitative study of war news, 1914-17.* *Amer. J. Sociol.*, 1935, 40, 464-475.—The process by which a modern state passes from neutrality to belligerency is illustrated in the case of the United States during the World War, as reflected in the press. In the five stages of neutrality attention is increasingly in the direction of war. News originating with the neutral nation undergoes a great increase in volume. It is always favorable to the nation supplying the greater amount of news. The focus of attention narrows to news concerning one of the belligerents and its relations to the neutral self. The national government as the collective symbol becomes the object of concern, with corresponding disregard of consequences for individuals. Items carrying appeals capable of affecting reader attitudes increase. These tendentious items are motivated by the usual idealism, and by appeals of specific application to the injured self. In this respect the malignant crisis is distinguished from the benignant. The latter is marked by conciliatory items which are unable to overcome the inertia of peace. Definitely belligerent items supplant conciliatory items in the malignant crisis.—(Courtesy *Amer. J. Sociol.*)

1313. *Frazer, J. La crainte des morts.* (Fear of the dead.) Paris: Noury, 1934. Pp. 271.—A series of six lectures delivered at Cambridge. The author shows that man believes in general that his conscious self does not end with death, but that it endures forever or for an indefinite period after the disappearance of the corporeal body that sheltered it. Primitive man has a respectful interest in his dead relations, as indicated at times by his bringing their souls into his home after having buried or burned their bodies. The attitude, however, is one of fear even in the case of family spirits. Examples of this are given. The custom of offering the first fruits of the land to the dead arises from the widespread belief that the spirits of the dead increase the fertility of the soil and that they therefore have a right to the fruits of the soil. The spirits of the dead can communicate with the living and give them valuable instructions. The final lecture explains and illustrates the theory according to which disease is often caused by the spirits of the dead, which must be exorcised rather than appeased by sacrifice. Bibliography of 347 titles.—*M. H. Piéron* (Sorbonne).

1314. *Futch, O. The reliability and validity of photographic eye-movement records in the reading of*

Latin. *J. educ. Psychol.*, 1934, 25, 620-629.—"No significant relationship was found between eye movements in the reading of Latin and comprehension of Latin." Records of eye movements in the reading of English and perception tests are, however, of value in prognosis of Latin achievement. The photographic eye-movement records used have a high reliability.—*J. A. McGeoch* (Missouri).

1315. *Goldschmidt, T. The menstrual taboo and woman's psychology.* *J. abnorm. soc. Psychol.*, 1934, 29, 218-221.—Evidence is produced that women have not observed very closely the effects of the menstrual period upon themselves. This factor points to the conclusion that its effects are in part mental and traditional rather than biological, that women are still under the spell of the primitive taboo. This paper does not intend to discount the biological factors, but to point out the possibility of the strong effects of superstition.—*C. H. Johnson* (Boston Psychopathic Hospital).

1316. *Greene, E. B. Michigan speed of reading tests.* *J. educ. Res.*, 1934, 28, 283-288.—The author draws up specifications for a speed of reading test as follows: (1) equal units of performance, (2) small chance success, (3) normal reading procedure, (4) small range of vocabulary and information, (5) optimum length, (6) equivalent forms, (7) English language, and (8) objective scoring. He finds no reading test which fulfils all of these specifications, although the Chapman-Cook Speed of Reading Test and the Minnesota Speed of Reading Test most closely approach the ideal. Hence he has devised two equivalent forms of the Michigan Speed of Reading Tests, following the Chapman-Cook plan but increasing the material in each form to 100 30-word sections of similar complexity. The author gives the method for the compilation of the test and also norms from grade 3B to college senior obtained from 3000 cases.—*S. W. Fernberger* (Pennsylvania).

1317. *Groves, E. R., & Brooks, L. M. Readings in the family.* Philadelphia: Lippincott, 1934. Pp. xxv + 526. \$3.50.—A grouping of relevant selections from the literature in 25 chapters, with from 6 to 31 selections in a chapter. The chapter subjects are: social significance of the family; the primitive family; the Hebrew, Greek and Roman family; the European background of the American family; the colonial American family; the modern American family; social conditions affecting American family life; economic conditions affecting American family life; emotional aspects of family life; behavior aspects of family life; personality growth and family experience; courtship; the arrested family; divorce and desertion; the broken family; the incompatible family; social problems related to the family; the family itself a problem; the legal approach; the eugenic approach; the educational approach; the economic approach; the mental-hygiene approach; the successful family; the study of the family.—*R. R. Willoughby* (Clark).

1318. *Hagerman, R. P., Dyer, W. K., & Limburg, C. C. The role, organization, and function of psychiatric service in a correctional institution.* *Publ. Hlth Rep., Wash.*, 1934, 49, 1325-1336.—A descrip-

tion of the methods and functions of the psychiatric service at the U. S. Industrial Reformatory. This includes both psychiatric and psychological study and recommendations.—*C. M. Louttit* (Indiana).

1319. **Hartmann, G. W.** The occupational prestige of representative professions in American society. *Psychol. Bull.*, 1934, 31, 695-696.—Abstract.—*J. F. Dashiell* (North Carolina).

1320. **Hayes, S. P.** Voters' attitudes toward men and issues, a statistical study of the presidential election of 1932. *Psychol. Bull.*, 1934, 31, 696-697.—Abstract.—*J. F. Dashiell* (North Carolina).

1321. **Hellmut, M.** *Menschenkenntnis aus der Handschrift*. (Understanding of people from handwriting.) Berlin: Wald, 1934. Pp. 286. RM. 5.40.—*R. R. Willoughby* (Clark).

1322. **Hevner, K.** The affective value of certain elements of musical form. *Psychol. Bull.*, 1934, 31, 678-679.—Abstract.—*J. F. Dashiell* (North Carolina).

1323. **Hill, H. C.** The constitutional psychopath as the warden's problem. *Publ. Hlth Rep., Wash.*, 1934, 49, 1423-1426.—Case report of the behavior and adjustment of a psychopath in Federal prison.—*C. M. Louttit* (Indiana).

1324. **Hirschfeldt, L.** Några ord om ett besök i ett institut i Moskva för kampen mot prostitutionen. (Some words about a visit to an institute in Moscow for the crusade against prostitution.) *Svenska Läkartidn.*, 1934, 31, 1342-1346.—The crusade against prostitution is handled in Russia by the so-called prophylactic institutes. At one time there were 33 of these institutes in the Soviet Union, 13 to 14 of which are still functioning. They are based, first of all, on the principle that a large percentage of prostitution is due to unemployment among women. In 1928, there were 3000-4000 prostitutes in Moscow; in 1931 and 1933, the numbers were 700 and 200-300, respectively. Moscow's population has increased from 1,500,000 persons in 1930 to 3,500,000 at the present time. The frequency of venereal disease is said to be .4%. Admission to the prophylactic institutes is voluntary. If necessary, treatment of venereal diseases is administered. All inmates are provided with elementary education, given some training in the fine arts, and taught a trade. Some continue their education, but the great majority are given work in factories. They are provided with lodging by the institute, and supervision is continued until deemed unnecessary. The present writer describes one of these institutes in detail. According to the director, 52% of those admitted have been put to work in the community and proved successful in their new environment.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1325. **House, F. N.** Viewpoints and methods in the study of race relations. *Amer. J. Sociol.*, 1935, 40, 440-452.—The methods that have been used in the study of race relations have been determined in part by prevailing theories or points of view. At least five such points of view have existed. The naïvely ethnocentric viewpoint of the ancient Greeks

implied practically no study of race or race relations and the same was true of the religio-ethical viewpoint which prevailed in the Middle Ages. From the time of Linnaeus, the taxonomic viewpoint became prominent and gave rise first to efforts at the classification of races and then to the measurement of race differences. Within recent decades, there has been a trend toward a cultural point of view, and the corresponding method has been one of search for cultural facts. Most recently of all, a distinctively sociological viewpoint has developed. It gives rise to methods of study which focus attention on race relations and interracial attitudes.—(Courtesy *Amer. J. Sociol.*)

1326. **Kinberg, O.** Dråpsförsök begånget av ung man mot hans fästmo under omtöckning av medvetandet. (A young man's attempt at murder of his fiancée during a state of confused consciousness.) *Svenska Läkartidn.*, 1934, 31, 1321-1338.—The third in a series of extensive case reports from Stockholm's Legal-Psychiatric Clinic. (See also VIII: 4597, IX: 834.)—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1327. **Kuroda, R.** Takuan's psychology revealed in his work "Rigaku Shokei." *Acta psychol. Keijo*, 1934, 2, 71-75.—According to a Zen priest Takuan (1573-1645), human life is a microcosmos, a miniature of the universe, and is governed by Sei, which is a counterpart of Ri, the macrocosmic principle. The Sei is static in nature and manifests itself as mind in our concrete experience. Several different phases of mind can be understood as an outcome of interconnection of external and internal worlds. Several terms corresponding to vital force, instincts, sensation, perception, feeling and will were used to express such phases.—*R. Kuroda* (Keijo).

1328. **Kuroda, R.** On Vijñāti-mātratā. II. The first two classes of Caitasikā-dharmā. *Acta psychol. Keijo*, 1934, 2, 84-90.—*R. Kuroda* (Keijo).

1329. **Lewis, F. H.** Development of artistic appreciation. *Psychol. Bull.*, 1934, 31, 679.—Abstract.—*J. F. Dashiell* (North Carolina).

1330. **Lyons, D. C.** The treatment of defective speech due to cleft palate and associated conditions. *Child Developm.*, 1934, 5, 197-200.—Several operative techniques are described for the correction of cleft palate defects, and the necessity for post-operative speech training is stressed.—*F. D. McTeer* (Wayne University, Detroit).

1331. **Makita, K.** Die Bearbeitung des Anspruchsniveaus durch den Wettstreit. (The modification of level of demand through competition.) *Jap. J. Psychol.*, 1934, 9, 615-644.—Competition may be carried into effect through instruction, through stimulation and through facts. Factual competition contains playful competition and genuine competition. The field of the former differs from that of the latter in its dynamical aspect.—*R. Kuroda* (Keijo).

1332. **Mangili, C.** In tema di suicidio "combinato." (On the subject of "combined" suicide.) *Arch. Antrop. crim.*, 1934, 54, 562-570.—The author describes a case of suicide in which the subject combined

various means for putting an end to his life, to punish himself for some theft committed by him in the shop where he worked and for which he expected to be dismissed.—R. E. Schwarz (V. A. Facility, Northampton, Mass.)

1333. Märker, F. *Charakterbilder der Rassen*. (Character pictures of races.) Berlin: Frundsberg-Verl., 1934. RM. 5.80.—R. R. Willoughby (Clark).

1334. Matsumoto, M. [Female ghosts in arts.] *Jap. J. appl. Psychol.*, 1934, 2, 301-311.—The author describes various forms of female ghosts expressed in the utai or nō play and points out delicacies touching a string of the human heart, reverence for eternal nature, and recollections of past culture embodied in them.—R. Kuroda (Keijo).

1335. McClusky, H. Y. A quantitative analysis of the difficulty of reading materials. *J. educ. Res.*, 1934, 28, 276-282.—Rate and comprehension scores were obtained from a number of undergraduates at the University of Michigan for six prose selections in the following fields: fiction, political science, economics, sociology, psychology and physics; these gave this order of difficulty. An analysis of the selections indicates that the easy material is characterized by short simple sentence structure and easy familiar vocabulary, while the difficult material is characterized by a technical, unfamiliar vocabulary and a complex sentence structure.—S. W. Fernberger (Pennsylvania).

1336. Meijer, D. H. *La magia al servizio della polizia e dei delinquenti nelle Indie Olandesi*. (Magic in the service of the police and of delinquents in the Dutch Indies.) *Arch. Antrop. crim.*, 1934, 54, 527-552.—The author discusses the relationship between superstition, or the belief in magic, and criminality in the Dutch East Indies; and, on the basis of studies and personal experience, he describes an occult, primitive world, which is still active and linked in a thousand disguises with the civilized world. Original data are offered on the calculus of probability used by these primitives to find out the chances of success in their criminal career. The same primitive mentality is found also among the criminals of civilized countries.—R. E. Schwarz (V. A. Facility, Northampton, Mass.)

1337. Müncker, T. *Die psychologischen Grundlagen der katholischen Sittenlehre*. (The psychological bases of the Catholic ethical doctrine.) Düsseldorf: Schwann, 1934. Pp. 340. RM. 10.80.—R. R. Willoughby (Clark).

1338. Norton, P. L. Team work for the wayward child. *J. crim. Law Criminol.*, 1934, 25, 434-444.—The work of a child welfare department organized within the public-school system of Bridgeport, Connecticut, to care for truancy and other behavior problems of school children is described. This agency cooperates with other agencies in the community and with the juvenile court.—L. Ackerson (Institute for Juvenile Research).

1339. Ortmann, O. Elements of chord-reading in music notation. *J. exp. Educ.*, 1934, 3, 50-57.—The author presents the results of an initial attempt

to measure, by means of a test, one specific phase of music reading. A detailed description of the test and the method of administration is included in the report.—H. W. Karn (Clark).

1340. Papp, S. *Die Sprachatlasarbeiten der Welt*. (The dialect atlas projects of the world.) *Scientia, Bologna*, 1934, 56, 27-40; 88-102.—This is an account of the various atlases which are being drawn up in various countries to show the geography and social development of the various dialects and tongues. The problem was first brought up at the first International Congress of Linguists at the Hague. Since then several basic publications of the Commission of Enquiry resulting from that meeting have appeared. The societies and individuals working on the surveys are named, and their techniques are described in the present paper. The first article deals with the work being done in the Romance languages; the second describes the work going on in the Germanic, Slavic, and Finnish tongues. The second part concludes with a discussion of the problems, aims, and potential results of these studies.—L. S. Selling (Eloise Hospital).

1341. Peixoto, A. *El interrogatorio y la confesión en el proceso judicial*. (The interrogation and confession in the judiciary process.) *Rev. Criminol., B. Aires*, 1934, 21, 383-395.—Third-degree methods of obtaining confession of crime are inquisitorial. Confession, it is pointed out, is of doubtful value. Possible psychological methods considered are: (1) psychoanalysis—controlled association; (2) falsehood detection—various expressions of emotion; (3) drugs—truth serum.—R. M. Bellows (Ohio State).

1342. Penso, G. *L'étude psychologique du délinquant*. (The psychological study of the delinquent.) Messina: G. D'Anna, 1931.—Penso develops a criminal psychology which rests on biological, social and legal foundations. The book has special reference to the new Italian penal code.—M. E. Morse (Baltimore).

1343. Pescor, M. J. The Woodworth personal data sheet as applied to delinquents. *Publ. Hlth Rep., Wash.*, 1934, 49, 1111-1115.—800 subjects at U. S. Northeastern Penitentiary Hospital were given the Woodworth personal data sheet. 4.9% were found with psychoneurotic tendencies. Reliability by the split-half method was found to be $.81 \pm .007$. The conclusion is that this scale is a valuable part of the examination program in institutional psychiatric practice.—C. M. Louttit (Indiana).

1344. Quinan, C. *Handwriting of criminals: an experimental study*. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 350-358.—Samples of timed handwriting were obtained from 100 murderers, 100 forgers, 100 non-criminals and 6 abattoir "killers." The writing of the murderers was slower, more unsightly and more irregular than that of the others. The writing of the abattoir "killers" was similar in every respect to that of the murderers.—D. G. Marquis (Yale).

1345. Saadi, M., & Farnsworth, P. R. The degrees of acceptance of dogmatic statements and preferences

for their supposed makers. *J. abnorm. soc. Psychol.*, 1934, 29, 143-150.—Dogmatic statements are more likely to have greater verbal acceptance when they are attributed to well-liked personages than in situations in which they are attributed to disliked people.—*C. H. Johnson* (Boston Psychopathic Hospital).

1346. Scheer, G. *Ausdrucksfaktoren in der zeichnerischen Entwicklung des Pubertätsalters.* (Factors of artistic expression in the development of the puberty period.) *Arch. ges. Psychol.*, 1934, 92, 1-25.—A study has been made of the drawings of 225 boys at the puberty level to discover the relationship to other puberty manifestations. Following the method of Louise Maitland in her study with self-chosen themes, the author makes a comparison with suggested themes. How does the age express itself, what light does it throw on this stage of development? Drawings studied came from children of ages 9-6 to 18-5, with from two to five drawings from a child. The author describes his technique minutely both as to conduct of the experiment and evaluation of its results. Drawings fell into three classes: those inspired by nature, by past experience, and by imagination. The article describes a number of the drawings made. These are tabulated, such tabulation is described, and a study is made of the interests of the age period.—*A. B. Herrig* (Michigan Central State Teachers College).

1347. Schöle, H., & Krewald, A. *Zur Frage des Verhältnisses von Sprache und Literatur zu Volk und Rasse.* (On the relationship of language and literature to folk and race.) *Z. Psychol.*, 1934, 132, 239-288.—In an attempt to test the assumption that the literature of a nation or of a race must express the spirit of that nation or race 14 educated Germans were asked to judge the national and racial origin of literary passages selected from various languages and translated into German. It was found that national origin could not be determined, that racial origin was occasionally recognizable, and that the judges were unable to distinguish reliably between genuine German prose and prose which had been translated from foreign languages. The results are accepted, nevertheless, as supporting Günther's theory of the racial determination of culture.—*R. B. MacLeod* (Swarthmore).

1348. Schubert, H. J. P. *Some characteristics of our transient population.* *Psychol. Bull.*, 1934, 31, 695.—Abstract.—*J. F. Dashiell* (North Carolina).

1349. Seashore, H. G. *Forms of artistic pitch deviations in singing.* *Psychol. Bull.*, 1934, 31, 677-678.—Abstract.—*J. F. Dashiell* (North Carolina).

1350. Smythe, J. *El problema del menor en estado de peligro.* (The problem of the minor in a state of danger.) *Rev. Criminol., B. Aires*, 1934, 21, 404-423.—Abnormal organic constitution is a principal factor of child delinquency. It may be determined by germ-plasm heredity, or it may be acquired by intra-uterine or extra-uterine environment. Endocrine irregularities cause multiple tensions which constitute leading factors in antisocial behavior.—*R. M. Bellows* (Ohio State).

1351. Stannard, A. N. *The social viewpoint of psychiatric service in a correctional institution.* *Publ. Hlth Rep., Wash.*, 1934, 49, 1336-1339.—"The social value of psychiatric studies is proportionate to the degree in which they go beyond the selection of a diagnostic label and point to something in the way of treatment" and advice as to control.—*C. M. Louttit* (Indiana).

1352. Stanton, H. M. *Predicting musical progress—a technique for guidance.* *Psychol. Clin.*, 1934, 22, 270-276.—The author describes the validation of a method of predicting success with the entering students in a four-year course in a university school of music. The cumulative key, as the author calls it, included the results of a test of musical talent and a comprehension test. On the basis of their ratings the students were divided into five groups designated as safe, probable, possible, doubtful, and discouraged. The music school records of the students so rated are summarized in tables. For four successive classes, which included a total of 565 students at entrance, the percentage of students of different ratings who graduated in four years was as follows: safe 60%, probable 42%, possible 33%, doubtful 23%, discouraged 17%.—*J. T. Metcalf* (Vermont).

1353. Taylor, C. D. *The relative legibility of black and white print.* *J. educ. Psychol.*, 1934, 25, 561-578.—The results uniformly support the conclusion "that black print on a white background is more legible than white on black." This is true whether legibility is measured in terms of span of visual apprehension, speed of reading, recognizability in peripheral vision, or greatest reading distance. Type size does not affect the relative difference in legibility between the two colors of print. "A serifless style of type (Kabelite) was equally legible as black on white or as white on black in all except the smallest type size." "A progressive decrease in the meaningfulness of the test material was accompanied by an increase in the relative inferiority of the white print." A theoretical interpretation of the results is given and practical applications are suggested.—*J. A. McGeoch* (Missouri).

1354. Thorndike, E. L. *Experiments in euphony.* *Psychol. Bull.*, 1934, 31, 679-680.—Abstract.—*J. F. Dashiell* (North Carolina).

1355. Toulouse, —. *La réforme du Code Pénal et la biocriminologie.* (The reform of the penal code and biological criminology.) *Arch. Antrop. crim.*, 1934, 54, 575-593.—In this article the author pleads for reforms in the French penal code in conformity with the teachings of Lombroso's biological criminology or criminal anthropology. He pleads for criminal prophylaxis; that is, for a methodical study of delinquents with a view to establishing the organic and mental factors which might explain their abnormal behavior, for the detection of criminal tendencies at school and the prevention of the actualization thereof, for pedagogic reforms and organization of labor, and for the medical supervision of released delinquents.—*R. E. Schwarz* (V. A. Facility, Northampton, Mass.)

1356. Travis, L. E., Malamud, W., & Thayer, L. R. The relationship between physical habitus and stuttering. *J. abnorm. soc. Psychol.*, 1934, 29, 132-140.—Using some of the methods of Kretschmer, a study was made of the physical types presented by 47 unselected adult male stutterers and 128 unselected adult male normal speakers. A majority of the stutterers as compared to a minority of the normals fell into the leptosome and leptosome-athletic groups. A minority of stutterers as compared to a majority of the normals fell into the athletic, pyknic, dysplastic, mixed and uncharacterized groups. The great majority of the stutterers showed introverted tendencies. Because of the striking relationship between stuttering and physical habitus it seems reasonable to assume that constitutional determinants play an important role in stuttering.—C. H. Johnson (Boston Psychopathic Hospital).

1357. [Various.] Abstracts of theses: Smith College School for Social Work, 1934. *Smith Coll. Stud. soc. Work*, 1934, 5, 211-224.—Abstracts of nineteen theses.—R. H. Brown (Clark).

1358. Witty, P. A., & Jenkins, M. D. The educational achievement of a group of gifted negro children. *J. educ. Psychol.*, 1934, 25, 585-597.—The mean age of the group studied is 9-10, the mean Stanford-Binet IQ is 148.9; the mean EQ is 133.7; and the mean AQ is 91. The conclusions are limited to this group and to those from a strictly comparable milieu. "Gifted Negro children may be found with about equal frequency at every grade- and age-level in the elementary school." They "demonstrate greatest educational superiority in those highly 'verbal' subjects which appear not to depend greatly on school experience."—J. A. McGeech (Missouri).

1359. Zerbst, F. G., & Singleton, D. E. The personality factor in prison discipline. *Publ. Hlth Rep., Wash.*, 1934, 49, 1365-1370.—Prison discipline will never achieve desirable results until it is made sufficiently flexible to meet the different personalities of prisoners.—C. M. Louttit (Indiana).

[See also abstracts 1020, 1024, 1028, 1039, 1083, 1096, 1179, 1188, 1195, 1199, 1226, 1227, 1259, 1266, 1291, 1296, 1393, 1399, 1411, 1438, 1439, 1445, 1452, 1460, 1474, 1475, 1482, 1483, 1514.]

INDUSTRIAL AND PERSONNEL PROBLEMS

1360. Achilles, P. S. Some data on tests used as an aid to the vocational counseling of adults. *Psychol. Bull.*, 1934, 31, 694-695.—Abstract.—J. F. Dashiell (North Carolina).

1361. Beckman, R. O. A new scale for gauging occupational rank. *Person. J.*, 1934, 13, 225-233.—The author describes a grouping of occupations which will readily indicate the rank of any occupation on the basis of the intelligence, capacity or skill, education and training required for its pursuit.—R. H. Brown (Clark).

1362. Biegeleisen, B. Zagadnienie wyćwiczenia. (The effect of training.) *Psychotechnika*, 1933, 7, 235-262; 8, 1-17.—The author in the first part of his

article considers the importance of the problem of the effect of training for psychotechnology, criticizes the investigations that have been made up to now, and presents the method and results of his own experiments. In the second part he discusses the effects of training persons who in the beginning showed poor results, and of persons who in the beginning showed good results. From his own experiences the author concludes that an examination given once with the aid of tests gives a better basis for diagnosis than repeated tests.—S. Blachowski (Poznań).

1363. Boesel, R. Factor Mensch in der Wirtschaft. (The human factor in industry.) Stuttgart: Poeschel, 1933. Pp. 60. RM. 2.50.—The author tries to show how efficiency in factories can be raised by a system of premiums offered to foremen and superintendents.—K. F. Muenzinger (Colorado).

1364. Boltunov, A. P., & others. Metodika psikhotechnicheskikh obsledovani. (Methods of psychotechnical investigation.) (Collected papers by the staff of the psychotechnical laboratory of the Leningrad Institute for the Study of Occupational Diseases.) Leningrad: GIZ, 1934. Pp. 130.—The contents of the text are as follows: (1) problems and principles of psychotechnics in the Institute for the Study of Occupational Diseases, A. P. Boltunov; (2) organizational methods, particularly in the work of the psychotechnical laboratory, U. A. Samarin; (3) methods for testing sensory defects, L. S. Finkelstein; (4) methods for testing memory, T. V. Glagoleva; (5) methods of general intelligence testing, A. P. Boltunov; (6) methods for testing mechanical (technical) intelligence, V. I. Baranov; (7) methods for testing psychomotor abilities, U. A. Samarin; (8) methods for testing general volitional faculties. The text stresses methods of establishing psychotechnical investigations applicable to the peculiarities due to individual differences; persons found in various trades; in cases of partial or complete loss of occupational skill, applying and recommending of patient to the Institute for the Study of Occupational Diseases. The chief aim of the text is to acquaint the physicians specializing in occupational diseases with psychotechnical methods.—L. S. Maeth (New York).

1365. Fraser, C. Work interests of junior executives. *Person. J.*, 1934, 13, 217-221.—A report on the interest blank given to seven junior executives of the Bell Telephone Company.—R. H. Brown (Clark).

1366. Gorshkov, A. E. Trud zapalshtikov ugolnich rudnikov. (Job analysis for coal-mine fuse lighters.) *Sovetsk. Psikhotekh.*, 1932, 3, 183-203.—All analyses and descriptions of fuse ignition in the coal mines are enumerated. They are based on a study made of conditions in several mines, particular attention being paid to the difficulties and interferences of the worker's day. The following aptitudes were stressed: motor coordination, sensory attitudes, emotional stability, and suggestibility. A whole series of recommendations for work organization, vocational selection and training conclude the article.—L. S. Maeth (Moscow).

1367. Gukov, A. G. K voprosu o planovom raspredelenii podroskov idushchikh v promishlinost. (The

problem of planning distribution of adolescents entering industry.) *Sovetsk. Psikhotekh.*, 1932, 3, 175-182.—The study concerns itself with the problems relating to the supply and demand of adolescent workers. Several means for vocational counselling and industrial placement of youth have been attempted in the Soviet Union. Until recently the function of attracting the adolescent worker was taken up by the factory school itself. A great deal of improper placement was the result. A change in the organizational structure of the vocational guidance bureau, in order that placement of adolescents be in accordance with previously established data with its corresponding recommendations, is here strongly advocated.—*L. S. Maeth* (Moscow).

1368. Hellerstein, S. G. Problemi psichotekhniki na poroge vtoroy peteletki. (Psychotechnical problems on the threshold of the second five-year plan.) *Sovetsk. Psikhotekh.*, 1932, 1-2, 7-36.—A classification of the various psychotechnical problems, with an attempt at explaining the different values of psychotechnical investigations, is made. The various values are due not so much to improper methods in investigations as to the false statement of the problem itself. Traditional psychotechnical attitudes are developed in the directive work because of the specific problems evolved in Soviet industry.—*L. S. Maeth* (New York).

1369. Ichheiser, G. Przyczynek do psychologii konfliktów zawodowych. (Contributions to the psychology of vocational conflicts.) *Psychotechnika*, 1934, 8, 81-86.—Vocational conflicts arise on the basis of work, convictions, ambition, relations to the environment, and earnings. They can be avoided by changes in the social organization of vocational work or by the efforts of each person on his own personality.—*S. Blachowski* (Poznań).

1370. Kafer, J. Selección de los estudiantes de medicina. (Selection of medical students.) *Arch. argent. Psicol. norm. Patol.*, 1933, 1, 43-44.—Tests to determine the presence of the important mental traits, such as rapid association of ideas, memory, ability to reason, and emotional stability, must be devised for the prospective medical student.—*R. M. Bellows* (Ohio State).

1371. Katin, L. The change from hand to machine composing. *Hum. Factor, Lond.*, 1934, 8, 416-419.—A discussion from the worker's point of view of the effects of the change from hand composing, with its attendant pride of craft, to machine composing, with its compensations in the form of smoother work and reduced strain.—*M. Horsey* (National Institute of Industrial Psychology).

1372. Keller, F. J. Grappling with the youth problem: occupational adjustment in Great Britain. *Occupations*, 1935, 13, 293-317.—Following a consideration of occupational adjustment as the product of social, economic, and educational forces, the author outlines briefly the occupational distribution in Great Britain, the English school system, and the critical points for guidance and placement. Agencies of guidance, which are next described, are juvenile employment exchanges, operated by the ministry of

labor, juvenile employment bureaus, operated by the local education authorities, junior instruction centers for unemployed youth between 14 and 18 years of age, head masters' and head mistresses' employment committees, and the careers masters of the public schools. Research in the field of the analysis of the individual, done for the most part by the National Institute of Industrial Psychology, is discussed. After a description of occupational information sources and projects, professional journals, and education for industry and commerce, the author appraises critically the provisions for occupational adjustment in England with special reference to such principles and practices as might be helpful in the United States.—*R. H. Brown* (Clark).

1373. Lauerer, A. Die Psychologie in der Zahnbehandlung des Kindes. (Psychology in child dentistry.) Würzburg: Mayr, 1934. Pp. 15.—*R. R. Willoughby* (Clark).

1374. Lazarsfeld, P. F. The psychological aspect of market research. *Harv. Bus. Rev.*, 1934 (October), 54-71.—The psychologist's main contributions to market research are the procedure of interpretation and the analysis of the act of purchase. A necessary assumption is the existence of a standard consumer, to whom is attributed as a measure of degree of importance what really is a measure of frequency in a representative group. General questions must be asked as well as those pertaining to concrete situations; previous as well as present situations are to be considered; all situations in which the commodity is involved have to be covered; objective as well as subjective data are to be secured. An analysis of the act of purchase must recognize the different phases of the act (need, deliberation, extraneous influences, decision, choice of store, contact with salesman, choice of article, in addition to financial considerations and previous experience). The accent of motivation is on the attributes of the commodity, on outside influences, or on the respondent's impulses. Their relative value is of supreme importance. The motives which appear as a result of statistical treatment of data must be clearly separated from the reasons given by individuals. Only the former are significant and valid, if properly interpreted.—*H. Beaumont* (Kentucky).

1375. Mata, L. Selección psicotécnica de agentes de policía. (Psychotechnical selection of police officers.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 48-58.—The clinical and physiological examination includes measurements of stature, visual acuity and color vision, auditory acuity and localization. The functions tested include: (1) rapidity and range of attention; (2) memory for faces, forms and colors, including a test for details in testimony; (3) ideation, including practical judgment and critical sense; (4) imagination; (5) simple and discriminative reaction time to visual and auditory stimuli. Other data concerning temperament and character, such as emotional stability and habits of discipline, are quantified. The various items are weighted differently for the four specialized classes of police officers—

mounted, traffic, patrolmen, and detectives.—R. M. Bellows (Ohio State).

1376. Miles, G. H. Psychological considerations involved in the application of motor-driving tests. *Hum. Factor, Lond.*, 1934, 8, 409-415.—Despite a death roll on the roads of over 7000 a year, there is still considerable apathy in Great Britain toward the use of motor-driving tests. This apathy is due in part merely to ignorance of the purpose and value of the tests; but other objections, based on the cost and delicacy of the apparatus and the length of time required for a thorough testing, have more foundation, and the psychologist must be prepared to meet these by simplifying his apparatus to the utmost degree compatible with scientific accuracy.—M. Horsey (National Institute of Industrial Psychology).

1377. Rock, R. T. A study of the constancy of responses to the items of the Strong vocational interest blank. *Psychol. Bull.*, 1934, 31, 705-706.—Abstract.—J. F. Dashiell (North Carolina).

1378. Rosenblum, A. I. O zadachach i putach psikhotechnicheskoy ratsionalizatsii profesii. (Problems and methods of psychotechnical rationalization of occupations.) *Sovetsk. Psikhotekh.*, 1932, 3, 155-171.—Psychotechnics deals not only with vocational selection, but also with occupational reconstruction through the help of psychological criteria. The conclusions and results are obtained through a series of psychological trade analyses, particularly the trades involved in the newer agronomic activities of the USSR.—L. S. Maeth (Moscow).

1379. Sedlaczek, S. Wyniki badań psychotechnicznych a powodzenie szkolne. (A comparison of the results of psychotechnical examination and success in school.) *Psychotechnika*, 1934, 8, 49-74.—Psychotechnical examinations given individually agree with the opinion of the school in 84% of the cases; given collectively, they agree in 53% of the cases. The opinion of the school is less prognostic than psychotechnical estimates. Psychotechnical analysis can improve its prognosis by a better choice of tests and observations of its subjects at work.—S. Blachowski (Poznań).

1380. Shaffer, L. F. Differentiation of interests among women's occupational groups. *Psychol. Bull.*, 1934, 31, 705.—Abstract.—J. F. Dashiell (North Carolina).

1381. Strong, E. K. Interests and sales ability. *Person. J.*, 1934, 13, 204-216.—From a study of the relationship between interest rating and production for various groups of insurance agents, the author concludes: "Successful life insurance agents score higher in life insurance interest than unsuccessful agents and men in general. Although many men with low life insurance interest ratings enter the business, very few continue in it and still fewer write a satisfactory volume. Judging from our data, 85 per cent of insurance agents with an A interest rating write \$100,000 or more insurance a year in contrast with 51 per cent of B+ men, 44 per cent of B men and 25 per cent of C men. In terms of an annual volume

of \$150,000 paid-for insurance 67 per cent of A men are successful in contrast to 43 per cent of B+ men, 21 per cent of B men and only 6 per cent of C men."—R. H. Brown (Clark).

1382. Sublette, D. J. The personnel approach to social planning. *Occupations*, 1935, 13, 324-328.—The need for comprehensive surveys of the personnel situation for an entire community is pointed out. "A survey of this kind would necessitate determination of the demands of industry for man-power of all types in terms of experience, training, skill, and other attributes, and the compensation and working conditions available for the employment of the man-power of the community. Such a survey would also contemplate a detailed study and analysis of the community's educational and training resources." The Maryland Industrial and Commercial Classification Survey is discussed as one step in effective social planning.—R. H. Brown (Clark).

1383. Uhrbrock, R. S. Jobs for college men. *Occupations*, 1935, 13, 318-323.—The problem of how a college senior can get a job is discussed in a general way, and many practical suggestions are given in connection with letters of application and interviews.—R. H. Brown (Clark).

1384. Urwick, L. Co-partnership and control. *Hum. Factor, Lond.*, 1934, 8, 385-396.—Numerous problems are involved in the association of workers with the higher control of business. Management to-day is becoming scientific rather than political—a task of coordinating the contributions of experts rather than of compromising conflicting interests. The new, scientific type of administration demands specialized knowledge and intellectual detachment. Workers who possess such knowledge should not remain workers; and members appointed to boards of directors for the avowed purpose of representing the interests of a particular section are by definition the reverse of detached. There are further difficulties connected with the committee form of administration. It is suggested that the solution may come through representation of the workers on a second body, behind the board, with wide powers of criticism and review but no duties of actual administration.—M. Horsey (National Institute of Industrial Psychology). [See also abstracts 1027, 1290, 1294, 1372, 1385, 1389, 1427, 1441.]

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1385. [Anon.] Psychological methods in a national scheme of vocational guidance. *Hum. Factor, Lond.*, 1934, 8, 397-402.—Part of a memorandum submitted by the National Institute of Industrial Psychology of Great Britain to the Joint Committee of the National Advisory Councils for Juvenile Employment. The Institute recommends the appointment in every school of a whole or part-time careers master or mistress, trained in psychological methods, whose function would be to assist pupils to plan their future careers. Suggestions are made regarding the training of such careers masters, and their cooperation with juvenile employment officers and with the

National Institute of Industrial Psychology.—*M. Horsey* (National Institute of Industrial Psychology).

1386. [Anon.] **Programs announcing candidates for higher degrees, February, June, July and August, 1934.** *Univ. Ia Stud. Ser. Aims Progr. Res.*, 1934, No. 45, n. s. No. 287.—A collection of programs for the final examinations for the degree of doctor of philosophy at the State University of Iowa on the dates given above, together with a list of candidates and thesis topics for the degrees of master of arts and master of science during the same period.—*B. Wellman* (Iowa).

1387. **Bigelow, E. B.** *School progress of under-age children.* *Elem. Sch. J.*, 1934, 35, 186-192.—A comparison was made between the achievement of one group of 88 children who were under 6 years of age upon their entrance into Grade I (in the Summit, New Jersey, schools) and another group of 39 children who entered when they were between 6 years and 6 years 4 months of age. After the children had been in school nearly four years, they were given the Modern School Achievement Test. Kuhlmann-Anderson intelligence tests had been administered previously. Test results led to these conclusions: children who enter Grade I at ages between 6 years and 6 years 4 months with IQ's of 110 or over are "practically certain to succeed in school"; those with IQ's of 100-109 have "a fair chance of success." Of the children below 6 years of age, those with IQ 120 or over will "probably succeed," those with IQ 110-119 have "a fair chance," and those children with IQ's below 110 have little opportunity of success. Success of all under-age children seems to be augmented by "sufficient" physical, social, and emotional maturity.—*P. A. Witty* (Northwestern).

1388. **Boldt, W. J., & Stroud, J. B.** *Changes in the attitudes of college students.* *J. educ. Psychol.*, 1934, 25, 611-619.—The measure of attitudes employed is Harper's test of social beliefs and attitudes. It has been given to samplings of the five classes, freshman to graduate. The results "indicate that the attitudes of the college students tested become more liberal, as a result of their college training, toward the issues involved in the test. Much of the change manifested appears to be due to the influence of the college life rather than to differences in age and maturity. This interpretation is substantiated by the fact that the amount of change in attitudes in question from one class level to another is a function of the particular academic courses pursued and by the fact that a direct relationship exists between the extent of change in attitudes and the number of hours of work taken in these subjects."—*J. A. McGeoch* (Missouri).

1389. **Boltunov, A. P., & others.** *Proforientatsia v shkole.* (Vocational orientation in the school.) Leningrad: GIZ, 1934. Pp. 187. 2r, 15k.—The text contains the collected works of the staff engaged in the psychotechnics laboratory of the Leningrad Pedological Institute. The contents are: (1) system of vocational orientation of graduates of the public schools, A. P. Boltunov; (2) vocational enlightenment and information, A. E. Scherbakov; (3) vocational

information reading materials, Y. I. Joeffe; (4) examining vocational (trade) abilities, I. S. Lapatuchin; (5) investigating vocational placement, G. U. Malice; (6) investigating trade education possibilities, A. P. Boltunov; (7) vocational adjustment of persons with special abilities, A. A. Lublinskaya; (8) the school record, A. P. Boltunov; (9) vocation counselling, S. G. Freishtadt; (10) vocational placement in adjustment schools, Z. B. Zlotina; (11) adjustment records of trades, A. P. Boltunov. The theses deal with the present status of syllabi, methodology and organizational attempts of school psychotechnical laboratories which direct vocational orientation of pedologists examining elementary and secondary school graduates, particularly those of the Leningrad district.—*L. S. Maeth* (New York).

1390. **Brueckner, L. J.** *The cumulative effects of the policy of non-failing.* *J. educ. Res.*, 1934, 28, 289-290.—A policy of excessive non-failure has been recently adopted in most school systems. The author believes that this change is producing serious effects, already felt in the secondary schools and colleges.—*S. W. Fernberger* (Pennsylvania).

1391. **Brueckner, L. J.** *Intercorrelations of arithmetical abilities.* *J. exp. Educ.*, 1934, 3, 42-44.—In the Critique of the Twenty-ninth Yearbook of the National Society for the Study of Education it was proposed that four major functions of arithmetic instruction should be recognized, namely, the computational, the informational, the sociological and the psychological functions. In an attempt to measure these functions the author devised a series of four scaled tests dealing with several major aspects of them. The present paper presents a summary of the results secured when these tests were administered to a group of 435 pupils in grades 4A-5B in typical schools of St. Paul. The analysis includes: (1) a study of the variability in arithmetic ability of each of the four tests for the whole group of children; (2) determinations of the intercorrelations among the scores on the four tests, (3) a study of the variability of the abilities of bright and dull children as measured by these four tests.—*H. W. Karn* (Clark).

1392. **Buswell, G. T., Powers, S. R., Pierce, A. E., Whitford, W. G., Smith, H. J., Coon, B. I., Colburn, E., Edwards, N., & Waltz, M.** *Selected references on elementary-school instruction, III. The subject fields—continued.* *Elem. Sch. J.*, 1934, 35, 212-226.—The writers, respectively, report and annotate briefly 16 references in the field of arithmetic, 7 in science, 12 in music, 11 in art, 12 in industrial arts, 15 in home economics, 7 in library training, 17 in health and physical education.—*P. A. Witty* (Northwestern).

1393. **Caldwell, F. F., & Mowry, M. D.** *Sex differences in school achievement among Spanish-American and Anglo-American children.* *J. educ. Sociol.*, 1934, 8, 168-173.—A total of 340 Spanish-American and 283 Anglo-American elementary school children were studied by means of achievement tests, both objective and essay, in history and English. The critical ratios indicate that in the responses on the

tests there are no sex differences sufficiently large to be considered statistically significant. However, there does appear to be some racial sex difference in school attendance; in school enrolment Anglo-American girls exceed boys by 16%; whereas Spanish-American boys exceed Spanish-American girls by 25%.—*F. D. McTeer* (Wayne University, Detroit).

1394. **Dawe, H. C.** Raising standards of behavior in the kindergarten. *Elem. Sch. J.*, 1934, 35, 267-280.—The writer studied the verbal contacts between kindergarten teachers and their pupils, wherein the teachers made explicit statements attempting to raise the standards of the children's behavior. Observations were made throughout the entire morning and afternoon sessions for a period of one week in each of 10 Minneapolis public schools. The remarks made by the teachers were recorded and the types of behavior which they attempted to improve were classified as: social behavior, participation in kindergarten activity, product, personal conduct, language, act of thinking, discipline. The responses of teachers when children approached them to "show" their work (product), to receive help, or to complain about other children were classified as: comment or criticism, approval, specific praise, instruction, actual help, or mechanical acknowledgment. The writer reports interrelationships among, and the frequency of occurrence of, the factors mentioned above. Sex differences are indicated.—*P. A. Witty* (Northwestern).

1395. **Dolch, E. W.** The efficiency of primers in teaching word recognition. *J. educ. Res.*, 1934, 28, 271-275.—Two different series of readers were used in two groups of schools. Subsequent testing by a test modeled on the second part of the Pressey vocabulary test.—*S. W. Fernberger* (Pennsylvania).

1396. **Dunlap, J. W.** Preferences as indicators of specific academic achievement. *Psychol. Bull.*, 1934, 31, 706-707.—Abstract.—*J. F. Dashiell* (North Carolina).

1397. **Eckert, R. E.** Intellectual maturity. *J. higher Educ.*, 1934, 5, 478-484.—An attempt at the University of Buffalo to shorten the period of high-school and college training for the superior student raised the criticism that "bright" students are not always "intellectually mature." Proceeding on the assumption that intellectual maturity is "predominately an intellectual characteristic" questionnaires were sent to 56 full-time instructors in the College of Arts and Sciences for the purpose of determining "how widespread was the feeling that a distinction existed between 'brightness' and 'maturity' and what traits were associated with each of these terms." This preliminary analysis revealed four trends which the author believes "are interesting enough to warrant more detailed study": (1) Since the mature students entered college earlier than the bright but immature and were also younger than the average college student, the factor of youth alone does not necessarily imply intellectual immaturity. (2) Intellectual maturity represents a quality additional to the brightness measured by intelligence tests and college marks, distinguishing the possessor from the group and

designating him "as an outstanding example of the most desirable type of student." (3) Intellectual maturity functions at the high-school level as well as at the college level, so that there is no sharp break between the two units of instruction. (4) The point of emphasis in measuring the superiority of students rests more upon "maturity in the linguistic and social-study fields than in other subjects."—*R. A. Brotemarkle* (Pennsylvania).

1398. **Fletcher, J. M.** Psychology in education: with emphasis on creative thinking. Garden City, N. Y.: Doubleday, 1934. Pp. xx + 524. \$2.50.—This text offers, in addition to an historical analysis and appraisal of current systems of psychology, a discussion of the problems of intellectual productivity. Teachers should concern themselves less with the pupil's intake and more with his output, and educational psychology should concern itself with the problem of knowing (here conceived as identification) as well as with the problem of learning. The instrumental curriculum is designed with this in view, and progressive schools are discovering how to set up an environment conducive to creative rather than exclusively reflective thinking. A summary of the characteristics of the former show the two types to be distinctly different, although reciprocally related. Mental and social sciences are generations behind physical sciences because of emphasis upon factual learning. Mental hygiene and human happiness are legitimate goals of education. "Once education becomes conceived as the process of modifying the reaction machinery of the human organism to its advantage, instead of . . . the process of imparting desirable knowledge, the study of the laws of the emotional life will transcend in importance the study of the laws of learning." There is a grave problem in the opposing trends of education and economic changes, the one toward individualism and the other toward social cooperation.—*M. P. Montgomery* (Faribault, Minn.).

1399. **Garth, T. R., & Johnson, H. D.** The intelligence and achievement of Mexican children in the United States. *J. abnorm. soc. Psychol.*, 1934, 29, 222-229.—The subjects were 683 Mexican children in Texas and New Mexico. Data secured showed the Mexican child as more like the American whites at the early ages, but less like them as they grow older, in educational achievement and intelligence. Both chronological age for a grade and educational retardation were high. A multiple correlation was found between intelligence and the factors of school placement and educational achievement.—*C. H. Johnson* (Boston Psychopathic Hospital).

1400. **Gerberich, J. R.** Five years of experience with a remedial reading course for college students. *J. exp. Educ.*, 1934, 3, 36-41.—The purpose of this study was to obtain objective information concerning the efficiency of a remedial reading course required of approximately 50 University of Arkansas freshmen each year since 1929. The following factors were used as final criteria of achievement: (1) general scholastic success for the first and subsequent semes-

ters of attendance, (2) percentages of students persisting varying numbers of semesters in attendance, (3) percentages of students placed on probation because of poor scholarship, (4) percentages of students dropped because of poor scholarship, and (5) percentages of students withdrawing during the semester. It was found impossible to select a group of control students having abilities similar to the abilities of the experimental students on the two initial measures—scores on reading and psychological examinations. Therefore, control students were selected whose scores were in most cases just above the scores made by the experimental students. A final analysis leads the author to conclude "that the markedly less disparity existing between the final status of the two groups than that which existed on the initial factors is evidence of the instructional efficiency on the experimental technique."—*H. W. Karn* (Clark).

1401. Gray, R. A. *Bibliography of research studies in education, 1932-1933.* *U. S. Off. Educ. Bull.*, 1934, No. 7. Pp. 349.—4061 references. Institution, subject and author index. Includes unpublished dissertations.—*C. M. Louttit* (Indiana).

1402. Hansen, R. *Some educational activities for the young child in the home.* *U. S. Off. Educ. Pamphl.*, 1934, No. 51. Pp. 23.—*C. M. Louttit* (Indiana).

1403. Hartmann, G. W., & Barrick, F. M. *Fluctuations in general cultural information among undergraduates.* *J. educ. Res.*, 1934, 28, 255-264.—A report of the retesting of 77 students at Pennsylvania State College by the Carnegie general culture test in the senior year, the first test having been taken in the sophomore year. The scores are approximately the same for the same students for the two tests. In all cases there are certain gains on specific questions which are about balanced by loss on other previously correctly answered questions. The superiority of the senior to the sophomore or vice versa does not lie in any given branch or knowledge (with the possible exception of general science) but tends to be highly specific.—*S. W. Fernberger* (Pennsylvania).

1404. Henry, L. K. *The role of insight in plane geometry.* *J. educ. Psychol.*, 1934, 25, 598-610.—Data were obtained from 32 geometry students, who were presented with 14 theorems in straight line figures and 9 originals. The statements of each subject were recorded by means of a microphone-dictaphone technique. "With the correct application of known theorems to the solution of simple originals as a criterion, insight may be said to have operated in thirty-two per cent of the cases. By the use of hints the value was raised to fifty-eight per cent of the cases, representing the total number of solutions achieved by the subjects. The ability to note the relationships present, that is, to state the fact to be proved in an original, operated in fifty per cent of the cases. This value was stepped up to ninety per cent by hints from the experimenter." Criteria of insight and transfer value are discussed. It is concluded that insight does not describe the typical behavior in this experiment.—*J. A. McGeoch* (Missouri).

1405. Hoppock, R. *Starting a guidance program: one way of doing it.* *Occupations*, 1935, 13, 344-347.—A brief outline of the steps in starting a guidance program in high schools. Significant steps are determination of the occupations in which the students are interested and the number of persons interested in each, arousal of local interest, acquisition of occupational information for interested students, arrangement for interviews of students with persons engaged in different occupations, and organization of group conferences. A list of books recommended for a course of professional reading by the individual or the committee in charge of the guidance program is given.—*R. H. Brown* (Clark).

1406. Hughes, A. G. *Discrepancies between the results of intelligence tests and entrance examinations to secondary schools.* *Brit. J. educ. Psychol.*, 1934, 4, 221-236.—Standing on English and arithmetic examinations for junior county scholarships for secondary-school entrance candidates and on an intelligence test showed correlations of .64 for 430 boys in 1927; .66 for 1107 boys in 1929; .59 for 394 girls in 1927; and .62 for 1083 girls in 1929. Of the 283 who won scholarships on the basis of the academic examinations 53% would have won if rated on intelligence alone. Investigation of discrepant cases led to the conclusion that intelligent children frequently fail to obtain scholarships because of handicaps in home conditions, defects in character such as laziness, poor health, and irregular school attendance. Ambition and unusually favorable home conditions occasionally aid less able children to surpass their level of ability. The results suggest that the usual type of examination may to advantage be supplemented by a well-constructed intelligence test.—*K. M. Cowdery* (Stanford).

1407. Hurlock, E. B., & McDonald, L. C. *Undesirable behavior traits in junior high school students.* *Child Developm.*, 1934, 5, 278-290.—Junior high school teachers indicated on a check list the undesirable traits which they had observed in each of their 790 pupils. An analysis of these lists indicates that the greatest amount of undesirable behavior occurs in boys at age 14, and in girls at age 12. However, the specific types of behavior vary in frequency from age to age; lying and temper tantrums are more prevalent with the younger children, whereas suspiciousness, resentment and stubbornness seem to increase with age. Most of the traits were present to some extent with every specific trait chosen for study.—*F. D. McTeer* (Wayne University, Detroit).

1408. Ichheiser, G. *Próba psychologicznej analizy skłonności zawodowych.* (An attempt to analyze psychologically vocational inclinations.) *Psychotechnika*, 1934, 8, 75-80.—By inclinations the author understands all interests, needs, tendencies, and habits that can or should be satisfied by vocational work directly or indirectly. Choice of a certain vocation merely means a desire to become this or that. The author shows on the basis of his own investigations that an analysis of vocational inclinations penetrates more deeply into the personality than an analysis of choice of vocation does.—*S. Blachowski* (Poznań).

1409. Johnston, J. B., & others. The 1934 college sophomore testing program. *Educ. Rec.*, 1934, 15, 471-516.—The committee on education testing of the American Council on Education presents in this article a list of the cooperating institutions with test results.—(Courtesy *J. educ. Res.*)

1410. Johnston, J. B., & Williamson, E. G. A follow-up study of early scholastic predictions in the University of Minnesota. *Sch. & Soc.*, 1934, 40, 730-738.—The report concerns itself with the question of the utility in student counseling of the college aptitude ranking, a composite index based on the student's rank in his high-school classes and on his psychological test score. For the years 1923-27 only 1.1% of the students with a C.A.R. below 26 received an average grade of C on their work in the Arts College at the University of Minnesota. No student entering the University in 1921 whose rating was below this threshold of ability graduated or made 4 years' progress in a professional course. In the case of the 1085 students entering the College in 1923-1925, 4.3% with C.A.R.'s of 26 or less eventually graduated from the institution, whereas of those whose C.A.R.'s were 96 or above 63.9% completed their work. Of the low-ability students 9.3% graduated from some other school or college at the University of Minnesota. Among 169 individuals assigned originally to the General College because of their low scholastic aptitude but admitted on probation to the Arts College, only 16% did satisfactory work. The author expresses faith in the value of the C.A.R. for predicting success in such institutions as the Arts College at the University of Minnesota. It is certainly more effective than either of the measures of which it is composed. Its value for predicting success in other colleges or universities or specific professional courses has not been adequately determined, but probably is not so great as under the conditions specified.—*H. L. Koch* (Chicago).

1411. Kelley, T. L., & Krey, A. C. Tests and measurements in the social sciences. New York: Scribner, 1934. Pp. 635. \$3.00.—This volume comprises the reports and appraisal of work done since 1929 in an investigation conducted for the Commission on Social Studies of the American Historical Association. The attempt was made to draw together all lines of attack hitherto made on the problem of school tests of social science instruction, and under competent psychological oversight to work out a valid testing technique which could be used throughout the United States. While this volume is primarily a record of experience in the use of new-type tests, particularly of multiple-choice tests in social science terms expressing relationship, it appears that the conclusions drawn are still divergent and somewhat tentative, the point of view of the social scientist (Krey) being distinctly less favorable than that of the educational psychologist (Kelley).—*H. D. Jordan* (Clark).

1412. Kirkpatrick, J. E. The motivating effect of a specific type of testing program. *Univ. Ia Stud. Educ.*, 1934, 9, No. 4, 41-68.—The systematic use of objective tests as a part of instruction was found to

accelerate pupil achievement in high-school physics. Experimental and control groups were formed in 26 high schools. Pupils of below-average mental ability benefited most by the use of the tests.—*B. Wellman* (Iowa).

1413. Kolberg, O. W. A study of summer-time forgetting. *Elem. Sch. J.*, 1934, 35, 281-287.—236 pupils in several North Dakota cities were given the Van Wagenen American History Scales, Information Scale S2, to measure retention. The test was given to each pupil at the close of the seventh-grade history course in May, 1933, and at the beginning of the eighth-grade course in September, 1933. Separate scores were computed for performances on the "easiest third" and on the "most difficult third" of the scale. The various scores were then correlated with the children's IQ's, which had been obtained from the administration of the Terman Group Test of Mental Ability. Conclusions resulting from the data are: "(1) In the case of easy material, improvement in knowledge of subject matter rather than forgetting takes place during the summer months. (2) When the entire range of intelligence is considered, there is no relation between intelligence quotient and retention. (3) The group with intelligence quotients of 120 and above shows superiority in retention of difficult subject matter when compared with the group with intelligence quotients below 90. (4) Difficult subject matter is forgotten by all intelligence-quotient groups to a greater extent than is easy subject matter."—*P. A. Witly* (Northwestern).

1414. Kovarsky, V. Inspection psychologique scolaire. (Psychological inspection of schools.) Montpellier: Public Schools, 1933-34. Pp. 7.—The writer, psychologist for the schools of Montpellier, found that a large number of school children do not possess abstract intelligence, although they are not backward and do possess practical intelligence. Others were found well suited for college work, but not for industrial and agricultural life. Accordingly, the writer recommends separate classes for the two groups.—*R. H. Brown* (Clark).

1415. Leggitt, D. Measuring progress in working skills in ninth-grade civics. *Sch. Rev.*, 1934, 42, 676-687.—From an experimental study of certain working skills in the study of social-science material involving 42 ninth-grade pupils and a like number in a control group, the author concludes that in 18 weeks pupils increased in the use of working skills about 50%.—(Courtesy *J. educ. Res.*)

1416. Lehman, H. C., & Witly, P. A. Vocational guidance: some basic considerations. *J. educ. Sociol.*, 1934, 8, 174-184.—The occupational choices of some ten thousand school boys, ages nine to eighteen years, showed a correlation of practically zero with the number of workers now engaged in the 138 occupations listed. Most of these boys expect to enter occupations which are already over-crowded and to avoid those occupations which include fewer workers but which seem to be lacking in prestige or in remuneration. A need is apparent for some sort of vocational guidance based on "intelligent, economic

planning."—F. D. McTeer (Wayne University, Detroit).

1417. Little, J. K. Results of use of machines for testing and for drill, upon learning in educational psychology. *J. exp. Educ.*, 1934, 3, 45-49.—Experimental results are presented which show that the use of certain mechanical test-scoring and drill devices make possible instructional techniques not otherwise practicable.—H. W. Karn (Clark).

1418. Lyon, V. E. The variation of high school senior and college freshman classes. *J. exp. Educ.*, 1934, 3, 25-35.—A study of the variation of the mean intelligence of high school and college freshman classes. Test results were transmuted into percentile scores. Major findings were as follows: In a sample of 108 Wisconsin high schools the means for the senior classes over a five-year period vary between 33.1 and 68.2. Total means for the freshman classes in 20 Wisconsin colleges vary between 52.1 and 73.4. These variations are related to size of school, as is indicated by a correlation of .44 between the total means and mean size of graduating class. In the study of the variability within schools it was found that the correlation between means of successive classes ranges between .579 and .736. Corresponding figures for college freshman classes are .84 and .78. The mean largest differences are 12.21 for the high schools and 9.72 for the colleges. There is a much wider range of largest differences for the high schools than for the colleges. The mean average absolute deviations are 3.75 for the high schools and 3.23 for the colleges.—H. W. Karn (Clark).

1419. Markey, F. V. The mental-hygiene problems of school attendants. *Psychol. Clin.*, 1934, 22, 277-280.—An analysis of the problems presented by 295 school children referred to a mental-hygiene clinic. The analysis includes a consideration of the kinds of problems for which children are referred by parents, health workers, school authorities, and other agencies.—J. T. Metcalf (Vermont).

1420. Martens, E. H. Teachers' problems with exceptional children. III. Mentally retarded children. *U. S. Off. Educ. Pamphl.*, 1934, No. 49. Pp. 42.—A brief manual on the educational aspects of mental retardation.—C. M. Louttit (Indiana).

1421. Matsumoto, Y. A study of needlework teaching. *Jap. J. appl. Psychol.*, 1934, 2, 312-338.—Speed, accuracy, uniformity and other aspects of hand sewing and the correlation between straight-line sewing and other forms of needlework were experimentally observed; stress is laid upon scientific treatment of the teaching in general.—R. Kuroda (Keijo).

1422. McClusky, H. Y. An experimental comparison of two methods of correcting the outcome of an examination. *Sch. & Soc.*, 1934, 40, 566-568.—Two groups of college students, equivalent in the average level of their performance on a reading and an intelligence test, took the same mid-term examination. A month later the members of one class were given an opportunity to correct their own papers by checking on the rightness or wrongness of each of their re-

sponses; while the members of the second group participated in a discussion dealing with the reasons for the responses considered appropriate for each question. After two, and again after another three weeks, the same examination was administered without warning. The group who had merely corrected their papers showed no loss, the checking apparently counteracting any tendency toward forgetting. The discussion group, however, showed a marked gain in the last two examinations. From these facts is drawn the conclusion that examinations, properly handled, have a teaching value.—H. L. Koch (Chicago).

1423. McConnell, T. R. Discovery vs. authoritative identification in the learning of children. *Univ. Ia Stud. Educ.*, 1934, 9, No. 5, 13-62.—Two equivalent groups of pupils were taught arithmetic by demonstrably different procedures, which in turn represented two divergent theories of learning, connectionism and Gestalt. Children taught by the first method showed superiority in immediate and automatic response, while those taught by the second method were better at transfer of learning and at manipulating number facts in mature ways.—B. Wellman (Iowa).

1424. McLeod, B. Teachers' problems with exceptional children. IV. Deaf and hard-of-hearing children. *U. S. Off. Educ. Pamphl.*, 1934, No. 54. Pp. 29.—A brief manual on the educational care and treatment of hard-of-hearing children.—C. M. Louttit (Indiana).

1425. McLeod, B. Teachers' problems with exceptional children. V. Crippled children. *U. S. Off. Educ. Pamphl.*, 1934, No. 55. Pp. 18.—A brief manual for teachers with suggestions for the care and educational treatment of crippled children.—C. M. Louttit (Indiana).

1426. McLeod, B. Teachers' problems with exceptional children. VI. Children of lowered vitality. *U. S. Off. Educ. Pamphl.*, 1934, No. 56. Pp. 16.—A brief teacher's manual concerning children suffering from malnutrition, tuberculosis, cardiac disturbances, etc.—C. M. Louttit (Indiana).

1427. Moffatt, B. S. Do preoccupational tests test? *Occupations*, 1934, 13, 235-238.—The writer believes that "a boy's fitness for a job can be finally measured only after he is on the job, and then, in many cases, only after a considerable lapse of time." He criticizes preoccupational tests on the grounds of dubious predictability, necessity for testers to have a "rich experience of a professional level in the use of tests in the purely mental and intelligence fields with boys of the secondary school level, plus an equally extended experience in industry with boys under training for the skilled trades," and the expense involved in the use of tests as contrasted with the costless try-out conditions.—R. H. Brown (Clark).

1428. Outland, G. E. The education of transient boys. *Sch. & Soc.*, 1934, 40, 501-504.—The report describes the amount of formal schooling of 5000 transient boys (15-20 years) registered in about the

first seven months of 1934 at the Central Intake Bureau of the Transient Service of the Federal Emergency Relief Administration in Los Angeles. Of these boys 58.9% had had at least a ninth-grade education. The group coming from large cities tended to have more schooling than did those coming from rural areas.—*H. L. Koch* (Chicago).

1429. Pieter, J. *Nowe sposoby egzaminowania*. (New methods of examining.) Warsaw: Książnica-Atlas, 1934. Pp. iv + 162. 3 zloty (paper).—This book aims to inform the reader what a test of knowledge is, how it is constructed, what its object is, and when and under what conditions it can be usefully applied. The book is divided into three parts, the first of which discusses pedagogical-sociological sources, psychological foundations, and the possibilities of such tests of knowledge; the second, the principles for the construction of tests of knowledge; and the third, principles for the practical application of tests of knowledge. The text is supplemented by specimens of geographic and language tests designed for pupils who have finished the sixth grade of the common school.—*S. Blachowski* (Poznań).

1430. Robson, W. F. *The vocabulary burden in the first year of French*. *Brit. J. educ. Psychol.*, 1934, 4, 264-293.—A comprehensive French vocabulary test given to 16 classes of pupils with average ages varying from 10-9 to 13-5, all after one year of French study, was compared in results with various factors such as French words presented, hours of study, IQ, and standing in French after additional years of study. Conclusions reached were that at this age in classes spending at least two hours weekly children are able to deal with vocabularies of up to 800 words, and learn to recognize an average of 71% of the words and actively reproduce 58%. Repetition of smaller vocabularies has no advantage over using approximately 800. A correlation of .6 was found between performance on vocabulary test and general intelligence; for groups of less ability the correlations are around .8. The variability in the performance of the more able children suggests need for further tests to discover what factors are involved in linguistic ability. Great differences were found between schools in time given to the subject and in the amount of vocabulary presented.—*K. M. Cowdery* (Stanford).

1431. Rocha, R., & Mata, L. *Uno de los ideales de la escuela moderna*. (One of the ideals of the modern school.) *Arch. argent. Psicol. norm. patol.*, 1933, 1, 23-26.—The ideal is to establish clinical guidance service to be performed by trained "orientation psychometricians" for the purpose of studying the interests, level of educability, emotional factors, intelligence, and other aspects of personality of the pupil with a view to the child's subsequent vocational specialization and socio-economic adjustment.—*R. M. Bellows* (Ohio State).

1432. Rugg, H. *After three decades of scientific method in education*. *Teach. Coll. Rec.*, 1934, 35, 111-122.—"Education is not and cannot be a science"—it is an art and a technology. In the initial stage of scientific work in education most studies were of reliability and objectivity. Less interest was shown

in validity. Almost no effort has been devoted to questions of value, theory, philosophy. The scientific method should be kept in education, but in the future "we shall discover its place and keep it there."—*J. M. Stalnaker* (Chicago).

1433. Salisbury, R. *A study of the transfer effects of training in logical organization*. *J. educ. Res.*, 1934, 28, 241-254.—The experiment was designed to show "whether such a fundamental study habit as outlining, if taught as a conscious method of analyzing thought and of organizing data for specific purposes, would produce changes in pupil learning habits that would transfer" to other situations. A study was made on 474 pupils in English classes in the 7th, 9th and 12th grades. The data were studied by the equivalent-groups method, being matched by IQ, mental age and score on the Haggerty reading examination. The training was accomplished by 30 carefully prepared lessons in outlining and summarizing. From a statistical treatment of the results the author concludes that training in the conscious use of outlining, when taught through practice with general materials, will transfer to specific study situations and tend to improve mastery of content subjects, general thinking and reasoning ability, and comprehension of reading (with slight reduction of speed). Such improvement may be noted as early as the 7th grade and is highly significant for the 9th and 12th grades. It has no effect on intelligence scores.—*S. W. Fernberger* (Pennsylvania).

1434. Sarbaugh, M. E. *The young college student*. *Sch. & Soc.*, 1934, 40, 823-824.—The author paired 57 students entering the University of Buffalo at the age of 16 or under with students who, although two years older, were still of equal ability according to high-school scholarship and test criteria. The freshman grades of the younger and older groups averaged virtually the same. The younger students participated to a considerable extent in extra-curricular activities, continued their education fully as long as the older, and felt their youth to be, in the main, no special handicap. The author concludes that at present letting the superior student skip grades is the most practical solution of the problem arising out of his relative superiority.—*H. L. Koch* (Chicago).

1435. Smith, V. T. *Occupational adjustment of college graduates as related to extent of undergraduate specialization*. *J. educ. Sociol.*, 1934, 8, 185-188.—The occupational activities of 856 college graduates over a ten-year period were ranked in relation to their fields of undergraduate specialization. When these rankings for each graduate were compared with the number of credit hours in his major subject, it was seen that "a greater percentage of occupational time was devoted to activities in the field of the major by graduates having many credit hours in their specialization field than was devoted to occupations of that rank by graduates having only a few hours in their major fields."—*F. D. McTeer* (Wayne University, Detroit).

1436. Stalnaker, J. M. *An objective English scholarship examination*. *Sch. & Soc.*, 1934, 40, 701-704.—The author describes the English examina-

tion used in May 1934 by the University of Chicago as one of its series of scholarship examinations held for senior-high-school students. The examination is a one-hour objective test sufficiently difficult to differentiate among the highest 10 or 20 contestants. Under the conditions obtaining, the reliability coefficient (odd-even items) was .88. A score based on the four odd-numbered sections of the test correlated .76 with a score based on the four even-numbered sections. 7 of the students ranking among the 10 highest on the examination did sufficiently well on the two other examinations they were required to take to win a scholarship.—*H. L. Koch* (Chicago).

1437. Thorndike, E. L. **Rebounds from the target: more about "The Prediction of Vocational Success."** *Occupations*, 1935, 13, 329-333.—In answer to the articles by Donald G. Paterson and Angus Macrae under the title "A target for critics: Professor Thorndike's findings draw fire," in *Occupations*, 1934, 13, 18-29, Thorndike points out (1) that there is little hope of either the addition of further test measures or the finer grouping of occupations showing correlations above .50 for prediction of earnings, interest, or level of job at mechanical work; (2) that sounder advice cannot necessarily be given concerning particular jobs than concerning the choice between the big divisions of manual-factory, office-clerical, and selling; (3) that the use of earnings, interest, and level of job, rather than that of vocational competence, was satisfactory as a measure of success; and (4) that it will be more profitable for those concerned with vocational guidance to consider the various significant facts of "The Prediction of Vocational Success" than to debate about the propriety of its statements about vocational guidance.—*R. H. Brown* (Clark).

1438. Thorndike, E. L. **Improving the ability to read.** *Teach. Coll. Rec.*, 1934, 36, 123-144.—Six tables are given showing the vocabulary load (*Teachers' Word Book*) of various books recommended for grades 4 to 9. "There simply are not enough books satisfactory in both content and vocabulary to provide wide reading for pleasure by the lower half of pupils in grades 4, 5, and 6." The inadequacies of school dictionaries are pointed out and suggestions for improvement are given. This article, continued from the October issue, is to be concluded in the December issue.—*J. M. Stalnaker* (Chicago).

1439. Thorndike, E. L. **Improving the ability to read.** *Teach. Coll. Rec.*, 1934, 36, 229-241.—Suggestions for modifying existing books so that they meet the five desiderata of a good reader are listed. The twenty-five hard or rare English constructions to be avoided are illustrated. A table presents the words outside the most used 2500 and the frequency with which they occur in six modified books for grade four. This article concludes a series of three on reading.—*J. M. Stalnaker* (Chicago).

1440. Tinker, M. A. **Remedial methods for non-readers.** *Sch. & Soc.*, 1934, 40, 524-526.—Word-blind individuals experience in the reading situation more or less difficulty in maintaining the proper direction of perceptual sequences. In the more

successful remedial methods instruction is directed toward the rectification of this difficulty. Motivation is apparently more important than the particular remedial method employed.—*H. L. Koch* (Chicago).

1441. Tolchinski, —, Clark, —, Gusev, —, & Dedkova, —. [Eds.] **Materiali profkonsultatsii.** (Some facts concerning vocational guidance.) (Vol. I.) Leningrad: GIZ, 1933. Pp. 120.—The text contains a series of seventeen articles which deal with the most recent problems encountered in vocational guidance, such as: the chief principles of vocational guidance in relation to the second five-year plan; relationship of vocational guidance to the Commissariat of Education; the work of vocational counsellors in FZU (factory schools); methods of interpreting assembled materials of case study with recommendations necessary for placement; trade interests of Leningrad adolescents within the last five years; diagnostic measures in trade interests; psycho-technical methods of testing in vocational guidance; educational achievement tests; technique of group psychotechnical testing; methods for adapting test material in order to economize paper; vocational guidance as it is practiced in Leningrad; scheme of work of the vocational guidance bureaus; required qualifications for vocational counsellors; bibliography for vocational counsellors.—*L. S. Maeth* (New York).

1442. Trimble, O. C. **The final oral examination: its limitations and its possible improvement as a major academic hurdle in the graduate school.** *Bull. Purdue Univ., Stud. higher Educ.*, 1934, No. 25. Pp. 38.—Section I is reprinted from *School and Society*, Apr. 28, 1934. Sections II to IV give experimental data and their analysis for 26 masters' examinations in which examination ratings and grades were obtained on prepared forms from members of the examination committees. Critical comments were also obtained from some of these. Among the more important conclusions to which the analysis of these data leads are the following: "The final oral examination, as it is now applied, may be little more than a formality or an academic gesture." "In general, members of examining committees do not agree in their evaluations." "Either the purpose of the final oral examination should be redefined and the whole set-up modified accordingly, or else . . . the steps necessary for the improvement of this examination as a measuring device should be undertaken."—*H. H. Remmers* (Purdue).

1443. Valentine, C. W. **An enquiry as to reasons for the choice of the teaching profession by university students.** *Brit. J. educ. Psychol.*, 1934, 4, 237-259.—Anonymous reports of approximately 400 graduate students in four universities indicate that among men economic desirability is the motive reported as of greatest weight in choosing teaching as a profession. With a good many men and women the obtaining of the Board of Education grant insuring a college education is a prime motive. Among women, liking for teaching and fondness for children appear to be stronger as motives than economic desirability. Influence of parents and teachers is small. About one-

tenth consider teaching as a stop-gap. Objections expressed are low salary, long and expensive training, and small prospects of promotion, on the part of men; women object to getting into a rut, domination by examinations and mental strain.—K. M. Cowdery (Stanford).

1444. Wagner, M. E. Regents grades as a cumulative educational record. *Sch. & Soc.*, 1934, 40, 367-368.—Using as her subjects mainly 661 freshmen who entered the University of Buffalo in 1925-29, the author attempts to gauge the relative value for the prediction of college scholarship (general and in special fields) of the returns from the New York State Regents Examinations, the American Council of Education Examination total and sub-tests, the Iowa Content Examination for High School Seniors and College Freshmen, the Cooperative English and French Tests, the American Council Economics Test, the Columbia Research Chemistry Test, and the Nelson-Denny Reading Test. The average of the marks a student made on all of the Regents Examinations, except those covering such subjects as music, correlated best with freshman and sophomore grades in college. For predicting success in specific fields, the Regents Examinations average either surpassed or equaled such indexes as the grades the student earned in specific disciplines in high school, as well as the scores he made on any of the content or college aptitude tests. The author raises the question whether the New York Regents Examinations would be as effective in such social and academic settings as prevail outside New York. She is of the opinion that in territory not in New York the average of the grades a student earns in high school would be the best single index for predicting college success, provided he attended a large school. For individuals from small high schools the batteries of placement tests available yield the more dependable estimates of the probable scholastic accomplishments of the student in college.—H. L. Koch (Chicago).

1445. Whitlow, C. M. Attitudes and behavior of high-school students. *Amer. J. Sociol.*, 1935, 40, 489-494.—A questionnaire study of the attitudes and behavior of 603 students in a six-year high school indicates that the typical student in this group believes that stealing, drinking, and lying, in the order named, are the cardinal offenses. Those most frequently admitted are swearing, disobedience, and lying. Boys resemble girls more in attitudes than in behavior. The consistency between attitudes and behavior is greater for girls than for boys.—(Courtesy *Amer. J. Sociol.*)

1446. Wrightstone, J. W. Appraising newer practices in teaching social studies. *Sch. Rev.*, 1934, 42, 688-693.—From an experimental study involving two groups of 30 pupils each, the author finds an 8.3 point superiority for the experimental procedure which consisted of solving problems derived from current periodicals.—(Courtesy *J. educ. Res.*)

1447. Zyve, C. T. [Ed.] *Willingly to school*. New York: Round Table Press, 1935. Pp. 108. \$3.00.—A description of modern progressive education

which relates learning to life experiences. Based on work at the Fox Meadow School and illustrated with many photographs.—R. R. Willoughby (Clark).

[See also abstracts 1188, 1213, 1296, 1301, 1316, 1335, 1358, 1372, 1448, 1475.]

BIOMETRY AND STATISTICS

1448. Boltunov, A. P. *Statistika dla pedagogov.* (Statistics for teachers.) Leningrad: GIZ, 1934. Pp. 204.—The author has devised this thesis in the form of a textbook for teachers of primary, elementary and secondary schools, as well as for persons engaged in pedological laboratories. The contents include variability series, tables and graphs, validity and reliability, probable error of estimate, various deviations, partial and multiple correlations, frequency tables, tables of squares and square roots, basic formulae, statistical literature references, etc. The make-up of the text is based on Garrett's, Rugg's, and Holzinger's texts on statistics. There is a purposive subordination of statistical form to specific peculiarities of psychological content. Interpretation of statistical indices conforms to the specific task of pedological work in the school.—L. S. Maeth (New York).

1449. Bronfin, H., & Newhall, S. M. Regression and standard error calculations without the correlation coefficient. *J. educ. Psychol.*, 1934, 25, 634-636.—The formulae are given in two forms. "The first employs deviations from the mean and is better adapted to hand methods; the other involves direct computation from the original measures and may be preferable for use with a calculating machine." The advantages are discussed.—J. A. McGeoch (Missouri).

1450. Findley, W. G. A multiple factor method yielding only positive weights. *Psychol. Bull.*, 1934, 31, 676-677.—Abstract.—J. F. Dashiell (North Carolina).

1451. Read, C. B. Trends in the improvement of statistical techniques. *Sch. & Soc.*, 1934, 40, 535-536.—The author presents a classification and quantitative summary of the more original articles appearing during the last 20 years in 6 leading educational journals and concerned with the techniques and devices of educational statistics. Of 196 articles surveyed, 81 dealt with the topic of correlation, 61 with errors of measurement.—H. L. Koch (Chicago).

1452. Reitz, W. Statistical techniques for the study of institutional differences. *J. exp. Educ.*, 1934, 3, 11-24.—Two statistical methods are presented by means of which an adequate study of institutional differences of student bodies in particular measures is made possible. The first method is Pearson's technique of testing the significance of the correlation ratio η_{xy} , if y_i represents the group number or the number of years and x_i the particular measure which is studied. The second method is Fisher's procedure of "analysis of variance." This method consists of the calculation and examination of the significance of z , the difference of the natural logarithms of the estimate of variance from the variation of the means

and the variance from the variation about the means. The two tests lead to essentially identical results, since s is a single-valued function of r^2 . It is pointed out how the statistical study of institutional differences may be made the basis for: (1) the establishment of standards of admission, (2) the rating of high schools, (3) the coordination of institutions or units of an institution within a state or regional area, and finally how such a study may form a basic procedure in the determination of the educational efficiency of institutions.—*H. W. Karn* (Clark).

[See also abstracts 1454, 1464.]

MENTAL TESTS

1453. Boda, S. v. Die Intelligenzprüfungen und die sogenannten "reinen Verstandsprüfungen." (Intelligence testing and the so-called pure mental capacity testing.) *Arch. ges. Psychol.*, 1934, 92, 168-174.—The criticism of all intelligence testing has been that it reveals an undifferentiated globular synthetic aspect of mind, and it will fail to give satisfaction until it becomes more analytically discriminating in revealing the heterogeneity of intelligence. The suggestion is made of a pure mental capacity test, of an analytical nature, dealing with all facets of the mental life, conscious and unconscious factors, the complete *Struktur*. Through such tests it becomes possible to ascertain the weakness or strength of various angles of intelligence with better means of prognosis of success in practical as well as in intellectual pursuits. The article quotes a number of contributions that have been made in this field.—*A. B. Herrig* (Michigan Central State Teachers College).

1454. Brotemarkle, R. A., & Fernberger, S. W. A method for investigating the validity of the categories of a judgment test. *J. educ. Psychol.*, 1934, 25, 579-584.—The calculations of the method of constant stimuli have been applied to results on the Roback Judgment Test obtained from 335 undergraduates. The results indicate that the assumptions that the categories of judgment are equidistant and that numerical values may be assigned to them are justified. "The Roback categories are internally valid for the purpose of test construction as at present employed." Advantages and other uses of the method employed are pointed out.—*J. A. McGeoch* (Missouri).

1455. Crawford, J. R. Age and progress factors in test norms. *Univ. Ia Stud. Educ.*, 1934, 9, No. 4, 7-39.—The effect of certain variable factors on achievement test norms of 7668 sixth-grade Philadelphia public-school children was determined. The use of norms based on groups in which the factors of chronological age, mental age and rate of progress are uncontrolled seems of doubtful value. Chronological age and mental age should be used together as a basis for establishing norms.—*B. Wellman* (Iowa).

1456. Cuff, N. B. A new device that scores tests. *Psychol. Bull.*, 1934, 31, 677.—Abstract.—*J. F. Dashiell* (North Carolina).

1457. El Koussy, A. H. A note on the greys analogy test. *Brit. J. educ. Psychol.*, 1934, 4, 294-295.—Presents a 4½-minute test, using the analogies type of items and shades of gray as material, as a proposed measure of "g" independent of the verbal factor of most verbal tests and of the spatiality factor of other primary perceptual tests. Correlation coefficients of .57 and .59 are found with the alphabetical series test and with Spearman's primary perceptual test respectively.—*K. M. Cowdery* (Stanford).

1458. Goldberg, N. [How intelligence is tested; the Binet-Terman tests.] *Unser Schul*, 1935, 5, No. 1, 20-25.—A semi-popular descriptive article on the Binet and Stanford-Binet tests. Bibliography.—*D. Shakow* (Worcester State Hospital).

1459. Greene, E. B. The analysis of practice effects on standard test scores. *Psychol. Bull.*, 1934, 31, 675-676.—Abstract.—*J. F. Dashiell* (North Carolina).

1460. Kamat, V. V. A revision of the Binet scale for Indian children. *Brit. J. educ. Psychol.*, 1934, 4, 296-309.—The article reports a translation and adaptation of items in the Binet test scale for use with Kanarese and Marathi children, allocating tests to the age above that in which 50% of all children pass the test. A tabulation indicates the age assignments in comparison with those of Binet, Terman, Burt, Bobertag, and Saffioti.—*K. M. Cowdery* (Stanford).

1461. Kennedy, F. The practical value of the June Downey will-temperament tests. *Brit. J. educ. Psychol.*, 1934, 4, 260-263.—The June Downey will-temperament tests were given to 59 high-school girls of 11 to 13 years of age in November 1931 and were repeated a year later. The coefficient of correlation between the results of the first application and those of the second was found to be .12, and the coefficients of a selection of individual test-item results range from .04 to .16. These indicate insignificance for the results of two applications of the test to the same subjects and add one more proof to the unreliability of the tests.—*K. M. Cowdery* (Stanford).

1462. Kreezer, G., & Preston, K. A. The relation between intelligence and the chronaxy of subordination. *Psychol. Bull.*, 1934, 31, 687.—Abstract.—*J. F. Dashiell* (North Carolina).

1463. Likert, R. A multiple-choice revision of the Minnesota paper form board test. *Psychol. Bull.*, 1934, 31, 674.—Abstract.—*J. F. Dashiell* (North Carolina).

1464. Long, J. A. The comparative merits of several techniques for determining validities of test items. *Psychol. Bull.*, 1934, 31, 676.—Abstract.—*J. F. Dashiell* (North Carolina).

1465. Madsen, I. N. The reliability and validity of the Stanford-Binet tests when administered by student examiners. *J. educ. Res.*, 1934, 28, 265-270.—42 examiners in the third year of the Lewiston, Idaho, Normal School tested 350 pupils over a three-year period. The results, treated by the correlation method, indicate the validity of Stanford-Binet

scores obtained by student examiners with a moderate amount of training and show that such examiners "are well on the road to become competent examiners."—*S. W. Fernberger* (Pennsylvania).

1466. Mateer, F. Pituitary acceleration of IQ's. *Psychol. Bull.*, 1934, 31, 686.—Abstract.—*J. F. Dashiell* (North Carolina).

1467. Nikitenko, N. N. Izmeritelnaya shkala umstvennogo razvitiya—metod dlia individualnogo ispitiyaniya trudno obuchaemich detay. (Measuring scale of mental development—methods for individual testing of problem children.) Leningrad: GIZ, 1934. Pp. 143.—Another revision of the Binet-Simon scale has been elaborated by the psychological staff of the Leningrad Pedological Institute under the leadership of Boltunov. The tests were standardized on the Leningrad school population. Partial credits are given in nearly all tests. Stress is laid on individual differences of qualitative solutions of the tests and the manner in which they are applicable to the analysis of retardation factors due to educational negligence of pathological mental backwardness.—*L. S. Maeth* (New York).

1468. Reymert, M. L. Mental tests. *Amer. Yearb.*, 1933, 867-871.—A review of all phases of mental testing during the year of 1933, including new tests, work on the nature of intelligence, different technical and theoretical aspects of testing, work on the problem of the constancy of the IQ, the various contributions to evaluation of existing tests, and the use of tests for studying special groups. New books and general reviews in the field are also listed.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

1469. Schultz, R. S., & Macvaugh, G. S. A short oral group intelligence test. *Sch. & Soc.*, 1934, 40, 639-640.—Believing that a group intelligence test presented orally might be an effective supplement not only to performance tests but also to the variety of instruments employing the visual method of presentation, the authors experimented with the Chapman Oral Intelligence Test for grades 6-12. The 100-question test was divided into two forms, an alternate-item method of division being employed. The forms were given to 88 7th- and 8th-grade pupils whose IQ's as obtained from the giving of the National Intelligence Test were known. Scores on each of the forms as well as on a combination of the two correlated with the returns from the National Test to the extent of about .70. Although Form A is more difficult than Form B the two correlated with each other .86.—*H. L. Koch* (Chicago).

1470. Simon, T. Note complémentaire relative à la méthode rapide de dépistage des arriérés intellectuels. (Supplementary note on the rapid method of discovering the intellectually retarded.) *Bull. Soc. Binet*, 1934, 35, 28-32.—The method attempts only to determine whether the child passes the limit of retardation. Nevertheless, the application of the method to 150 children 11 to 16 years of age has enabled the author to prepare a scale analogous to

that of Binet-Simon. The scale is given in a table.—*M. H. Piéron* (Sorbonne).

1471. Stutsman, R. Factors to be considered in measuring the reliability of a mental test, with special reference to the Merrill-Palmer scale. *J. educ. Psychol.*, 1934, 25, 630-633.—In addition to the methods of computing reliability, the age range, type of measure, range of talent, and interval between tests must be considered. The results of the application of different methods and from the consideration of different factors are illustrated by data obtained by use of the Merrill-Palmer scale.—*J. A. McGeoch* (Missouri).

1472. Tulchin, S. H. Clinical studies of mental tests. *Amer. J. Psychiat.*, 1934, 13, 1237-1248.—Various factors which may influence adequate test interpretation in the clinic are considered. These are grouped and discussed as follows: (1) factors which influence test performance; (2) factors which deal with limitations of the test itself; (3) comparison of test results obtained from several different types of examination; (4) criteria of intelligence based on other than test results. The relationship of several of these factors to the rise and fall of IQ is considered and the necessity for further study stressed. Of great importance is the psychologist's "skill in integrating his findings with the data secured by the other members of the clinic team."—*N. Goldman* (Boston Psychopathic Hospital).

1473. Van Wagenen, M. J. Effect of test content upon intelligence quotients. *Psychol. Bull.*, 1934, 31, 675.—Abstract.—*J. F. Dashiell* (North Carolina).

[See also abstracts 1086, 1273.]

CHILDHOOD AND ADOLESCENCE

1474. Bologa, L. Lectura tineretului. (Literature of youth.) Cluj, Rumania: Inst. de Psychol., Univ. Cluj, 1933. Pp. viii + 116. Lei: 80.—The author studies by means of questionnaires the interest in literature of 2935 public- and high-school boys and girls, between 8 and 20 years old. Four problems are considered: (1) appearance, growth and decay of preference for different kinds of literature from 8 to 20 years; (2) preferred kind of literature at each year; (3) preferred kind of literature at different epochs; and (4) the motivation and explanation of these preferences. Stories for children dominate at the age of 8 years. History appears in the same year and reaches its highest point at 15 years. Novels characterize the age of 15-20 years. Drama starts at the age of 15 years. Travel stories are read especially between 16 and 20 years. Philosophy is read only after 16 years. A table is given at the end of the book which shows graphically the proportion of each kind of literature at each year. Love of adventure seems to be the most important incentive for reading literature until 15 years. Then erotism seems to play a very important role. The interest for knowledge and science seems to appear later. A résumé in French is given.—*N. Margineanu* (Paris).

1475. Brown, F. *The truant child. Sch. & Soc.*, 1934, 40, 772-773.—Truancy, the author believes, "must be regarded as a *symptom* of some maladjustment." "Psychotherapeutic measures are indicated when truancy is not caused by patent mental retardation or through the influence of bad companions." "Recourse to court action by the school should be resorted to only when all other efforts at adjustment have failed."—H. L. Koch (Chicago).

1476. Bryan, A. I., Garrett, H. E., & Perl, R. E. *A genetic study of several mental abilities at three age levels. Psychol. Bull.*, 1934, 31, 702.—Abstract.—J. F. Dashiell (North Carolina).

1477. Burgess, E. W. [Ed.] *The adolescent in the family.* (Report of the Subcommittee on the Function of Home Activities in the Education of the Child. White House Conference on Child Health and Protection.) New York: Appleton-Century, 1934. Pp. xviii + 473. \$3.00.—From data obtained from 13,000 school children (urban and rural, white and colored), and their teachers, the following are some of the important conclusions: Externals of home life are not nearly so significant as personal relationships. The average level of family relationships and personality adjustment is higher for urban than for rural children. The father is much less a factor in the child's intimate life than the mother. Order of birth has little effect upon parent-child relations. A psychologically broken home is of more significance than is the physical absence of a parent. Sex instruction is most effectively given by parents. Problems of adjustment are most neglected among negroes and recent immigrants. Recommendations are for further research, more guidance clinics, study and consultation centers for parents, nursery schools, supervision of children in broken homes, and promotion of family recreation. The appendix explains in detail the method and material used, and presents the findings in comparative tables.—M. P. Montgomery (Faribault, Minn.)

1478. Charters, J. A. *Child training: a manual for foster parents.* Columbus, Ohio: State Dept. of Public Welfare, 1934. Pp. 126. \$.30.—The special problems involved in rearing foster children, as well as some fundamental general principles, are discussed in 18 lessons arranged for study groups of untrained foster parents. Each lesson includes questions for discussion and references for reading.—M. P. Montgomery (Faribault, Minn.)

1479. Chozak, L. E. [The forming of new conditioned connections in the child by means of crossed closure on the basis of previous experience.] *Na Putyakh k Izuch. vysshikh Form Neirodin. Reb.*, 1934, 45-53.—The problem of this work was whether on the basis of previous experience qualitatively new conditioned connections as the result of some internal interactions of the brain might originate suddenly and abruptly. The tested children were faced with a certain problem to be solved; after the subjects had failed, the previous experience of the children was organized. Two easier problems were given, each containing some elements or some points of resemblance

to the unsolved difficult problems. Returning after that to the first task, still unsolved, in many cases the children instantly without trial and error found the right answer to the difficult problem. The following conclusions were drawn: the forming of new conditioned connections is based on previous training, but appears also suddenly, as a new quality. In the forming of two conditioned connections by means of interactions, there may arise suddenly a new conditioned connection, differing qualitatively from the former ones. In the new conditioned connection the stimulus is similar to, but not identical with, the stimuli of the previously formed conditioned connections, whereas the response is similar to, but not identical with, the response to them. The experimental task of forming new conditioned connections by means of crossed closure is a difficult one for children of nine to ten, being fulfilled only in 33% of the subjects.—A. Yarmolenko (Leningrad).

1480. Cowan, E. A., & Foulke, M. *Variation in susceptibility to the conditioning of inhibition as an index of constitutional type. Child Developm.*, 1934, 5, 201-236.—The following test of conditioned inhibition was tried on 359 grade-school children: red, white, and green lights and a buzz were presented to each subject in a fixed but eccentric order, such that the same colored stimulus invariably preceded the white light. The subject was instructed to press the response key of a Marietta reaction-time apparatus as soon as the stimulus was presented, except that he should not respond to the white light. The subject's reaction time for the conditioned stimulus (the color directly preceding the white light) was recorded for each of ten appearances in a series of 33 stimuli. The extent to which the subject's average reaction time for this stimulus was greater than his initial reaction time was considered a measure of his tendency toward conditioned inhibition. "The objective results obtained under this experimental set-up are indicative of a tendency in most of the subjects to be dominated by either delaying or accelerating factors, or to be equally influenced by these two factors throughout the test period." There is some evidence to indicate that these test results are not influenced by age or training and that they remain consistent for a given individual two years or more. Bibliography of 66 titles.—F. D. McTeer (Wayne University, Detroit).

1481. Craig, E. *Types of boys amenable to treatment in a junior republic. Smith Coll. Stud. soc. Work*, 1934, 5, 129-159.—This study is an analysis of twenty-six boys referred from the Hartley-Salmon Clinic of Hartford to the Connecticut Junior Republic. The case records of the clinic are analyzed for age, national background, intelligence quotient, and source of referral, and the cases are classified and compared according to personality, emotional tone of the home, parental attitudes, and neighborhood. Adjustment at the Republic and after leaving the Republic is reported. The author concludes that "this specialized form of institutional treatment seems to offer something of value to one definite type of boy (the average adolescent who is of normal intelligence,

makes friends, but comes from a poor environment) and, also, to a few other individual boys if they have certain special abilities or capacities which find outlet in the Republic program. The general trend of the boys' adjustments during and after treatment would seem to indicate that what they gain during their experience at the Republic usually carries over after their return to the community."—R. H. Brown (Clark).

1482. Damerau, R. *Influence of treatment on the reading ability and behavior disorders of reading disability cases.* *Smith Coll. Stud. soc. Work*, 1934, 5, 160-183.—"This paper dealt with twenty-two patients of the Illinois Institute for Juvenile Research who showed both reading disability and behavior problems. In addition to the material obtained from the case records, follow-up visits were made in seventeen cases. All the children who could be located were retested by the writer on both the Stanford-Binet and the Diagnostic Reading tests." "A comparison of the changes in reading ability with the changes in behavior indicated that improvement in one field bore little relation to improvement in the other. Some children improved in both reading and behavior. Others improved in reading but showed no change in behavior, and vice versa. A few did not improve in either field. Modification of behavior symptoms seemed to occur only when the tutoring was supplemented by some form of social-psychiatric treatment, or when the parent-child relationship was obviously satisfactory. The few cases in which such treatment failed were characterized by unusually severe emotional handicaps."—R. H. Brown (Clark).

1483. Delacroix, H. *L'enfant et le langage.* (The child and speech.) Paris: Alcan, 1934. Pp. 175. Fr. 12.—The present book completes the presentation of the author's *Speech and Thought*. The following topics are treated: the influence of the child's acquaintances upon the development of language; child phonetics; vocabulary and phrases; and finally speech retardation in deaf mutes.—M. H. Piéron (Sorbonne).

1484. Eggleston, M. W. *Faith or fear in child training.* New York: Round Table Press, 1934. Pp. 202. \$2.00.—Practical answers in child guidance problems.—R. R. Willoughby (Clark).

1485. Goodenough, F. L. *The development of the reactive process from early childhood to maturity.* *Psychol. Bull.*, 1934, 31, 701-702.—Abstract.—J. F. Dashiell (North Carolina).

1486. Hattwick, M. S. *A genetic study of pitch sensitivity in younger children.* *Psychol. Bull.*, 1934, 31, 700-701.—Abstract.—J. F. Dashiell (North Carolina).

1487. Hess, J. H., Mohr, G. J., & Bartelme, P. F. *The physical and mental growth of prematurely born children.* Chicago: Univ. Chicago Press, 1934. Pp. 449.—A volume containing several essays treating of prematurely born children. Part I (Chapters I-VI), *A Clinical Study*, by Hess: This part contains the history of the organization and development of premature infants' stations, a description of the clinical material,

and a discussion of the factors influencing termination of pregnancy, the morbidity and mortality before and after graduation from the premature infant station. Part II (Chapters VII-XII), *Developmental Study of Prematurely Born Children*, by Mohr and Bartelme: This contains descriptions of the techniques used and the nature of the sample. Growth curves are given of physical features; there is a discussion of birth injury and mortality. Mental development, as measured by tests, is graphed; there is a discussion of psychological methods to be used. A number of tables are given. One conclusion is that a number of differences between premature and full-term children in habits and social adaptation can be shown; full-term children are usually more adequate socially. Part III consists of a number of short studies: Chapter XIII, *Infants Surviving a Low Weight of Less Than One Thousand Grams*, by Kunstadter, R. H., and Bartelme: 18 children were studied, 13 lived, and at least 50% seemed to have a favorable outlook physically and mentally. Chapter XIV, *Premature Infants Surviving Intracranial Hemorrhage at Birth*, by Kunstadter: 69 infants were studied. This group is analyzed as to the amount of cerebral injury. Chapter XV, *A Clinical and Pathologic Study of Premature Infants*, by Clein, N. W. Chapter XVI, *Studies of Blood Pressure, Electrocardiogram, Pulse Rate, and Roentgenogram of the Heart in Premature Infants*, by Londes, S. Chapter XVII, *Syphilis and Prematurity with Special Reference to the Use of Stovarsol in Prophylactic and Curative Treatment of Congenital Syphilis*, by Rambar, A. C. Chapter XVIII, *Prophylaxis of the Anemia of Premature Infants*, by Abt, F., and Nagel, B. R. Chapter XIX, *Meninges in Intracranial Hemorrhage of the New-Born*, by Lewison, A., and Saphir, O. Chapter XX, *The Cerebrospinal Fluid of Premature Infants*, by Glaser, J. Chapter XXI, *Oxygen Therapy for Premature and Immature Young Infants*, by Hess, J. H. Chapter XXII, *Inguinal Hernias in Premature Infants*, by Rambar, A. C., and Goldberg, S. L. There are 161 tables and 90 figures.—L. S. Selling (Eloise Hospital).

1488. Ivanov-Smolensky, A. G. [Ed.] *Na puti k izucheniyu vysshykh form neyrodinamiky rebyonka.* (On the road to the study of the higher forms of the neurodynamics of children.) Moscow: 1934. Pp. 474.—This is the fourth volume of the transactions of the laboratory for the physiology and pathophysiology of the higher nervous activities of children and adolescents. It contains an introductory article by the editor and 17 reports of original experiments on conditioning and problem solving in children. The first three volumes were respectively entitled: *An Attempt at a Systematic Investigation of the Conditioned Reflex Activities of Children*; *The Fundamental Mechanisms of Conditioned Reflex Activities of Children*; and *Experimental Investigations of the Higher Neural Activities of Children*.—G. H. S. Razran (Columbia).

1489. Koch, H. L., Dentler, M., Dysart, B., & Streit, H. *A scale for measuring attitude toward the question of children's freedom.* *Child Developm.*, 1934, 5, 253-266.—Using the Thurstone attitude-scale

technique, a scale was constructed for measuring "attitude toward the question of the freedom, independence and self-management children should be allowed." When the two forms of this scale were given to large groups of individuals, it was found that those individuals who were more highly educated tended to mark fewer items in the scale, to be more consistent, and to be more liberal in their judgments. Those persons who professed to have had no contact with children seemed to be more stern than those who had had such contacts.—*F. D. McTeer* (Wayne University, Detroit).

1490. Lindner, S. *Das Saugen an den Fingern, Lippen etc. bei den Kindern* (Ludeln). (Children's sucking of fingers, lips, etc.) *Z. psychoanal. Pädag.*, 1934, 8, 117-138.—(Reprint of 1879 article cited by Freud.) Two categories of suckers of thumbs, lips, etc., are distinguished: the simple suckers of parts of the body and foreign objects; and those who combine the sucking with an auxiliary activity. The first group may be subdivided as follows: those who suck (1) lips, (2) tongue, (3) finger or thumb, (4) back of the hand, (5) arm, and (6) foreign objects. These six forms of sucking may be combined with either active or passive assistance to form the second group. Examples of each type are given, and harmful results indicated. A chart is appended listing 69 cases and presenting the nature of the sucking activity. The article is accompanied by numerous illustrations.—*J. J. Carlson* (Aurora-on-Cayuga, N. Y.)

1491. Manuel, H. T. *Physical measurements of Mexican children in American schools.* *Child Development*, 1934, 5, 237-252.—This paper presents a brief report of measures of height, weight, width of shoulders, width of hips, depth of chest, and arm girth of 3600 Mexican school children in the elementary grades of Laredo and El Paso, Texas. The heights and weights of these Mexican children correspond closely with similar measurements reported from Mexico; but compared with the American children of the Baldwin-Wood tables the Mexican children are about two inches shorter age for age, and about four to seven pounds lighter.—*F. D. McTeer* (Wayne University, Detroit).

1492. Morgan, J. J. B. *Child psychology.* New York: Farrar & Rinehart, 1934. Pp. xii + 502. \$3.00.—This revised edition incorporates the results of recent experimental studies of the psychological growth of the normal child. Education has assumed the burden of training in mental hygiene. Granting that the chief function of the home is development of the child's personality, teachers who place the blame upon parents for children's maladjustment are merely employing a defense mechanism. They are prone to consider the troublesome, active child a problem and the quiet, withdrawn type the best adjusted. This is a reversal of the truth. In establishing motor habits, positive methods should be used, never negative. This applies also to emotional re-education. Speech defects may result from the nagging and fear-provoking methods used to induce a change in handedness, rather than from the change itself.

Position in the family cannot be said to produce specific results, and jealousy among siblings is not inevitable. Adults need not make the child learn, but should control the things he learns; help him avoid punishments rather than administer artificial ones, and help him establish the habit of success. The dull child should specialize early; the bright child relatively late. Moral principles, social adjustments, and the ability to face reality are habits learned through satisfaction experienced in maintaining them.—*M. P. Montgomery* (Faribault, Minn.)

1493. Osaki, S. *On children's causal thought studied from their explanations of strange phenomena.* *Jap. J. Psychol.*, 1934, 9, 681-714.—Physical and prelogical causal explanations and the influence of age and environment upon them in kindergarten children, public-nursery children and public-school children (406 in all) were examined.—*R. Kuroda* (Keijo).

1494. Ozeretsky, N., & Paiova, E. [Concerning the study of motor capacity of children with diseases of the metamere system and defective peripheral apparatus.] *Sovetsk. Nevropatol.*, 1934, 3, No. 7, 113-118.—Investigating the motor capacity of children with diseases of the metamere system and defective peripheral apparatus (poliomyelitis, tubercular spastic paralysis of joints, amputated extremities, and the Kashin-Beck disease). The static coordination and simultaneous movements are conserved in all cases. The dynamic coordination of the arms is better in poliomyelitics than in all the other investigated patients. The speed and tempo of movements are decreased in poliomyelitics. A number of synkinesias were observed. The investigation of the mimicry and handwriting of poliomyelitics showed the defective regulation of innervation and denervation. The motor inferiority of poliomyelitics can be localized in both pyramidal and extrapyramidal systems.—*A. Yarmolenko* (Leningrad).

1495. Parrilla, A. *El mundo consciente de la joven.* (The conscious world of youth.) *Arch. Neurobiol.*, 1934, 14, 205-282.—An investigation, by the questionnaire-interview method, of 36 aspects of the cognitive, emotive, and conative mental life of female college youth. The inquiry is aimed at such individual characteristics as tendency toward active life, emotivity, egotism, sociability, ambition, interests, desire for maternity, etc. The study is to be concluded in a later number.—*R. M. Bellows* (Ohio State).

1496. Parrilla, A. *El mundo consciente de la joven.* (The conscious world of youth.) *Arch. Neurobiol.*, 1934, 14, 405-444.—The concluding part of a former study. The elaboration of world consciousness, investigated by a set of 36 questions answered by college females, is characterized by an affective circle and temperamental oscillations. Subjective states are found to be related to phases of the menstrual cycle.—*R. M. Bellows* (Ohio State).

1497. Plank-Spira, E. *Herbert in der Schule.* (Herbert in school.) *Z. psychoanal. Pädag.*, 1933, 7, 83-88.—The writer reports the school behavior of the

abnormal child described by Editha Sterba. His poor motor coordination and self-help ability, primitive drawings, relationships to other children, inhibitions and anxieties evidenced in the school situation are discussed. In the field of learning progress was made only in that which interested him particularly. His knowledge was purely formal, with little relation to reality; his chief interest was in the abstract. Arithmetic, geographical orientation, and language were the center of his attention. He could read every text, even those containing foreign words, fluently; his knowledge of correct writing and German grammar were amazing. A short story which he wrote is given as illustration. His knowledge of natural history, of plants and animals was surprisingly poor. After only a few days he learned to write, although he had missed a whole year's practice. The writer points out the advantages which the Montessori school offered, and which alone made schooling for this abnormal child possible.—J. J. Carlson (Aurora-on-Cayuga, N. Y.)

1498. Popov, E. A., & Bril, P. D. [Exceedingly lively children.] *Sovetsk. Psikhonevrol.*, 1934, No. 1, 135-139.—"Excessive liveliness" is a syndrome peculiar to children. It may appear in certain brain diseases (encephalitis, epilepsy, etc.) as well as alone in the form of a singular anomaly of evolution. Idiopathic "excessive liveliness" is apt to disappear in some years, but it is unknown whether it disappears entirely or changes into another abnormal form of behavior.—A. Yarmolenko (Leningrad).

1499. Pyles, M. K., & Macfarlane, J. W. The consistency of reports on developmental data. *Psychol. Bull.*, 1934, 31, 596.—Abstract.—J. F. Dashiell (North Carolina).

1500. Rémy, M., & Simon, T. Nouvelle série d'épreuves pouvant servir à explorer les connaissances des enfants. (A new series of tests for the exploration of child knowledge.) *Bull. Soc. Binet*, 1934, 35, 1-20.—Easy tests are described which complete the previous ones by the same authors for the observation of young children.—M. H. Piéron (Sorbonne).

1501. Schiel, W. Die Bedeutung des bewahrenden und verarbeitenden Gedächtnisverhaltens für die Struktur des 11- bis 12jährigen. (The significance of retentive and elaborative memorial behavior for the structure of the child of 11 to 12 years.) *Z. Psychol.*, 1934, 132, 133-175.—The distinction between two types of memory, the retentive and the elaborative, was found to be positively related to the general distinction between stable and labile eidetic types, developed by Jaensch. 714 eidetic school children were used for the observations.—R. B. MacLeod (Swarthmore).

1502. Seham, M., & Boardman, D. V. A study of motor automatisms. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 154-173.—The motor automatisms of 57 junior high school children were recorded from direct observation during 25 periods of five minutes each. The largest number of movements observed were those of touching the mouth. The data were related to associated factors, such as sleep, food, general health, physical status and functional signs.

Significant relationships were found between tics relating to the head and fatigue and nervousness.—D. G. Marquis (Yale).

1503. Sonohara, T. Ueber den Einfluss der Saccharinreizungen auf die Leersaugbewegungen bei den Neugeborenen. Eine systematische psychologische Untersuchung von Neugeborenen. 1, 2. (Effect of saccharine stimulation upon vain sucking movements in new-born infants. A systematic psychological investigation of new-born infants. 1, 2.) *Jap. J. exp. Psychol.*, 1934, 1, 1-18.—With the same method as was used by Eckstein, it was found that new-born infants respond from the first day of birth to saccharine stimulation with vain sucking movements. The stimulation threshold is initially much higher than that of adults, but it approaches the latter in the course of the first week. Other solutions have no such constant effect. The response to saccharine solution appears even in the drowsy state, but not in sleep. The author refers to a physiological hypothesis bearing upon the sucking reflex in new-born infants.—R. Kuroda (Keijo).

1504. Stone, C. P., & Barker, R. G. Aspects of early and late pubescence in man. *Psychol. Bull.*, 1934, 31, 605.—Abstract.—J. F. Dashiell (North Carolina).

1505. Stone, C. P., & Barker, R. G. On the relationships between menarcheal age and certain aspects of adolescent attitudes and interests, intelligence, and physique. *Psychol. Bull.*, 1934, 31, 703.—Abstract.—J. F. Dashiell (North Carolina).

1506. Stratton, G. M. Jungle children. *Psychol. Bull.*, 1934, 31, 596-597.—Abstract.—J. F. Dashiell (North Carolina).

1507. Stubbs, E., & Irwin, O. C. A note on reaction times in infants. *Child Developm.*, 1934, 5, 291-292.—Incidental to other research with infants, the authors note their finding that "with a loud tone the startle response occurs in only seventy percent of the stimulations, whereas the respiratory response occurred one hundred percent of the time." The average reaction time of the respiratory response was .09 seconds, while that of the body startle was .19 seconds.—F. D. McTeer (Wayne University, Detroit).

1508. Svendsen, M. Children's imaginary companions. *Arch. Neurol. Psychiat., Chicago*, 1934, 32, 985-999.—Vivid and sustained imaginary companions were reported for 13% of the children in a group of unselected families. Interviews and histories were obtained in 40 cases. Personality difficulties were present in most of the children, timidity being most common. The median intelligence quotient was 120. The nature of the imaginary experiences and the conditions of their appearance are analyzed.—D. G. Marquis (Yale).

1509. Swinton, R. S. Analysis of child behavior by intermittent photography. *Child Developm.*, 1934, 5, 292-293.—A method is described whereby successive pictures of the same scene are taken automatically at pre-determined intervals. Less expensive and less burdensome in analysis than continuous

motion pictures, this technique is suggested for studies involving child behavior.—*F. D. McTeer* (Wayne University, Detroit).

1510. Tenney, H. K. *Let's talk about your baby.* Madison, Wis.: Kilgore Pr. Co., 1934. Pp. 85. \$1.50.—*R. R. Willoughby* (Clark).

1511. Thompson, H. *Duration and periods of waking and sleeping in infancy.* *Psychol. Bull.*, 1934, 31, 639.—Abstract.—*J. F. Dashiell* (North Carolina).

1512. Tryon, C. M. *The constancy and generality of emotional adjustment in adolescents as measured by a questionnaire.* *Psychol. Bull.*, 1934, 31, 585-586.—Abstract.—*J. F. Dashiell* (North Carolina).

1513. Vance, T. F., & McCall, L. T. *Children's preferences among play materials as determined by the method of paired comparison of pictures.* *Child Developm.*, 1934, 5, 267-277.—Photographs of 48 common play materials were shown to each of 32 children, ranging in age from 42 to 76 months. The photographs were shown two at a time, so that each material was compared with each of five other materials of the same type, and finally the preferred materials of each type were compared with those of the seven other types. In each instance the child was asked to indicate which material he would rather play with. The preferences rank as follows: plastic materials, clay; toy animals, small animals; house-

keeping materials, doll buggy; playground apparatus, swings and rings; large toys for active play, tricycles; manipulative materials, ball; transportation miniature toys, trains; blocks, small cubes.—*F. D. McTeer* (Wayne University, Detroit).

1514. Zillig, M. *Beliebte und unbeliebte Volksschülerinne.* (Loved and unloved Volksschule girls.) *Arch. ges. Psychol.*, 1934, 92, 121-140.—This study deals with the factors that make for popularity or unpopularity and the effects of such estimates upon the bearer of these characteristics. A Volksschule in Würzburg was used and seven classes of girls were involved. Children were asked to name the five most beloved children in their classes. Tabulation was made of (1) loved, (2) somewhat loved, and (3) unloved children. Among factors determining opinions were social standing, occupational level of parents, and personal care, rather than intelligence and application to school duties. The effect of the opinions of companions was studied as these entered into the development of the children concerned.—*A. B. Herrig* (Michigan Central State Teachers College).

[See also abstracts 1030, 1054, 1090, 1129, 1134, 1140, 1142, 1143, 1144, 1149, 1150, 1151, 1152, 1154, 1155, 1159, 1161, 1163, 1166, 1167, 1193, 1197, 1198, 1203, 1213, 1220, 1227, 1311, 1338, 1346, 1350, 1367, 1373, 1402, 1428, 1445.]

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